> academic studies do show that most firms tend to finance short-term assets from short-term sources and long-term assets from long-term sources.[170]

Whereas short-term debt has a maturity of one year or less, long-term debt may have maturities of 30 years or longer. Although there are practical financing constraints, such as the need to "stagger" long-term debt maturities, the general objective is to extend the average life of long-term debt. Still, long-term debt has a finite life, which is likely to be less than the life of the assets included in rate base. Common equity, on the other hand, is perpetual.

The perpetual nature of common equity makes it an important component of the capital structure. Because long-term debt has a duration shorter than the average life of the rate base, common equity is needed to extend the capital structure's duration to more closely match that of the rate base. Short-term debt, on the other hand, will shorten the capital structure's average life, contrary to the practice of maturity matching. It would be unusual, therefore, for an electric utility to fund its long-lived assets with short-term debt.

Q. TURNING NOW TO THE COMPANY'S PROPOSED CAPITAL STRUCTURE, DOES SWEPCO'S PROPOSED CAPITAL STRUCTURE COMPRISE LESS RISK THAN THAT OF THE PROXY GROUP?

A. No, it does not. As shown on Schedule DWD-14R, the Company's proposed common equity ratio of 49.37% falls within the range of common equity ratios in place at the operating utility subsidiary level for Dr. Woolridge's proxy group. Looking to the average and median common equity ratios for the operating utility

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[170] Eugene F. Brigham and Joel F. Houston, Fundamentals of Financial Management, Concise 4th Ed., Thomson South-Western, 2004, p. 574.

subsidiaries indicates that SWEPCO is slightly more leveraged than the operating utility subsidiaries of Dr. Woolridge's proxy group.

Q. DR. WOOLRIDGE DISCUSSES AEP'S USE OF DEBT TO DRIVE RETURNS AT THE EXPENSE OF ITS OPERATING SUBSIDIARIES SUCH AS SWEPCO.[171] WHAT IS YOUR RESPONSE?

A. Dr. Woolridge's position appears to suggest the Company is engaging in double leverage, to the detriment of customers.[172] My primary concern is that Dr. Woolridge's position runs counter to the widely accepted "stand-alone" regulatory principle, which treats each utility subsidiary as its own company. Under the stand-alone approach, the cost of capital is determined using the subsidiary's capital structure and cost of debt and equity. The cost of common equity is generally estimated by reference to a proxy group of firms of comparable risk.

Consistent with the stand-alone principle as discussed previously, the ownership structure does not affect the operating utility's capital structure or cost of capital. Parent entities, like other investors, have capital constraints and must consider the attractiveness of the expected risk-adjusted return of each investment alternative as part of their capital budgeting process. This opportunity cost concept applies regardless of the source of the funding. When funding is provided by a parent entity, the return on that financing must still be sufficient to provide an incentive to the parent entity to allocate equity capital to the subsidiary or business unit rather than other internal or external investment opportunities. That is, the

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171 Woolridge Direct Testimony , at 19-20.
172 *Ibid.*

regulated subsidiary must compete for capital with its affiliates and with other similarly situated utility companies.

From an external investor's perspective, the combined company must provide a return reflecting the risks of the company's constituent parts. Investors therefore value combined entities on a sum-of-the-parts basis, expecting each operating segment to provide its appropriate risk-adjusted return. That practical financial principle is consistent with the regulatory principle of treating utilities as stand-alone entities. From both perspectives, it is the utility's operating risk that defines the capital structure and cost of capital, not investors' sources of funds.

Contrary to those basic principles, Dr. Woolridge's double leverage argument assumes the required return depends on the source of financing, not on the risks of the underlying utility operations. The position that a company would have different cost rates depending on how its investors fund their equity investments violates the widely acknowledged economic "law of one price," which states that in an efficient market, identical assets would have the same value. In other words, two utilities, identical in all respects but for their form of ownership, should have the same common equity cost rates.

Moreover, if the common equity of a subsidiary were held by both the parent and an external investor, the equity held by the parent would have one required return, and the equity held by outside investors would have another. To the extent the required returns differ, so would the value of the equity. But in an efficient market, identical assets must have the same price (value). If not, the difference quickly would be arbitraged away. As Morin noted in New Regulatory Finance:

> Carrying the double leverage standard to its logical conclusion leads to even more unreasonable prescriptions. If the common shares of a subsidiary were held by both the parent and by individual investors, the equity contributed by the parent would have one cost under the double leverage computation while the equity contributed by the public would have another.[173]

The double leverage argument also requires every affiliate within the corporate family to have the same cost of capital, regardless of differences in risk. AEP reports four operating segments: vertically integrated utilities, transmission and distribution utilities, AEP Transmission Holdco, and generation and marketing.[174] Because they are separately reported, we reasonably can assume those segments face different risks.[175] And because they face different risks, we reasonably may assume they require different returns. Morin further noted:

> Just as individual investors require different returns from different assets in managing their personal affairs, why should regulation cause parent companies making investment decisions on behalf of their shareholders to act any differently? A parent company normally invests money in many operating companies of varying sizes and varying risks. These operating subsidiaries pay different rates for the use of investor capital, such as long-term debt capital, because investors recognize the differences in capital structure, risk, and prospects between the subsidiaries. Yet, the double leverage calculation would assign the same return to each activity, based on the parent's cost of capital. Investors recognize that different subsidiaries are exposed to different risks, as evidenced by the different bond ratings and cost rates of operating subsidiaries. The same argument carries over to common equity. If the cost rate for debt is different because the risk is different, the cost rate for common equity is also different, and the double leverage adjustment shouldn't obscure this fact.[176]

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173 Morin, at 523.

174 *See*, American Electric Power, SEC Form 10-K for the year ended December 31, 2020, at 17.

175 On page 15 of his direct testimony Dr. Woolridge notes the presence of a small premium of five basis points for the authorized ROEs of vertically-integrated electric utilities compared to transmission and distribution-only electric utilities.

176 Morin, at 524-525.

Longstanding academic literature has thoroughly discussed the flaws associated with the double leverage approach. For example:

1. Pettway and Jordan (1983), and Beranek and Miles (1988) point out the flaws in the double leverage argument, particularly the excess return argument, and also demonstrate that the "stand-alone" method is the superior approach.[177]

2. Rozeff (1983) discusses the ratepayer cross-subsidies of one subsidiary by another when employing double leverage.[178]

3. Lerner (1973) concludes that the returns granted to equity investors must be based on the risks to which the investors' capital is exposed and not the investors' source of funds.[179]

Basic finance texts reach the same conclusions. In Principles of Corporate Finance, 8th edition, Brealey, Myers, and Allen state:

> In principle, each project should be evaluated at its own opportunity cost of capital; the true cost of capital depends on the use to which the capital is put. If we wish to estimate the cost of capital for a particular project, it is project risk that counts.[180]

Likewise, in Modern Corporate Finance, 1st edition, Shapiro states:

> Each project has its own required return, reflecting three basic elements: (1) the real or inflation-adjusted risk-free interest rate;

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177 Richard H. Pettway and Bradford D. Jordan, *Diversification, Double Leverage, and the Cost of Capital,* The Journal of Financial Research, Vol. VI, No. 4, Winter 1983; William Beranek and James A. Miles, *The Excess Return Argument and Double Leverage,* The Financial Review, Vo. 23, No. 2, May 1988.

178 Michael S. Rozeff, *Modified Double Leverage – A New Approach,* Public Utilities Fortnightly, March 31, 1983.

179 Eugene M. Lerner, *What are the Real Double Leverage Problems?* Public Utilities Fortnightly, June 7, 1973.

180 Richard A. Brealey, Steward C. Meyers, Franklin Allen, Principles of Corporate Finance, McGraw-Hill Irwin, 8th Ed., 2006, at 234.

> (2) an inflation premium approximately equal to the amount of expected inflation; and (3) a premium for risk. The first two cost elements are shared by all projects and reflect the time value of money, whereas the third component varies according to the risks borne by investors in the different projects. For a project to be acceptable to the firm's shareholders, its return must be sufficient to compensate them for all three cost components. This minimum or required return is the project's cost of capital and is sometimes referred to as a hurdle rate.[181]

The preceding paragraph bears a crucial message: The cost of capital for a project depends on the riskiness of the assets being financed, not on the identity of the firm undertaking the project. Simply put, the notion of double leverage runs counter to both financial and regulatory principles.

Lastly, double leverage arguments have been rejected by several regulatory commissions, including the Maryland Public Service Commission:

> We reject People's Counsel's proposed capital structure [reflecting a double leverage adjustment] because it suffers from numerous flaws. First, it assumes that the rate of return depends on the source of capital rather than the risks faced by the capital.[182]

In 2016, the Federal Energy Regulatory Commission ("FERC") reiterated its previous position on "double leveraging,"[183] stating that "the motivations of a parent company are irrelevant"[184] so long as the operating company passes the FERC's three-part test: (1) it issues its own debt without guarantees; (2) it has its own bond rating; and (3) it has a capital structure within the range of capital

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181 Alan C. Shapiro, Modern Corporate Finance, Wiley, 1st Ed., 1990, at 276.

182 Maryland Public Service Commission, Order No. 81517, Case No. 9092, *In the Matter of the Application of Potomac Electric Power Company for Authority to Revise its Rate and Charges for Electric Service and for Certain Rate Design Changes*, July 19, 2007, at 73. [Clarification added]

183 *See, Transcontinental Gas Pipe Line Corp.*, 80 FERC ¶ 61,157, 61,657 (1997) ("Opinion No. 414").

184 *See*, 154 FERC ¶ 61,004, Docket No. ER15-945-001, at 15.

structures approved by the commission.[185] Under FERC guidance, the capital structure of AEP is not applicable to SWEPCO.

The Washington Utilities and Transportation Commission has cited to FERC's position on the use of double leverage in support of its decision in Docket No. UE 050684:

> The FERC does not embrace the concept of double leverage. For purposes of calculating rate of return for wholly owned subsidiaries, FERC uses the stand-alone capital structure and return on equity of the subsidiary so long as the subsidiary issues its own debt, maintains its own credit ratings and meets other standards related to equity ratio. The courts have upheld this policy. *See Missouri Pub. Serv. Comm'n v Federal Energy Reg Comm'n, 215 F.3d 1, 342 U. S. App. DC. 1* (D.C. Cir. June 27, 2000).[186]

B. Sole Reliance on and Application of the Discounted Cash Flow Model

Q. TO WHAT EXTENT DOES DR. WOOLRIDGE'S RECOMMENDED ROE RELY ON HIS DCF MODEL?

A. As previously stated, Dr. Woolridge relies exclusively on his constant growth DCF model results to determine his recommended ROE. As discussed in my Direct Testimony,[187] the use of multiple models adds reliability to the estimation of the common equity cost rate, with the prudence of using multiple cost of common equity models supported in both the financial literature and regulatory precedent.

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185 *Ibid. See also, Transcontinental Gas Pipe Line Corp.*, 80 FERC ¶ 61,157, 61,657 (1997) ("Opinion No. 414").

186 Washington Utilities and Transportation Commission, Docket No. UE 050684, Order No 4, at 117.

187 D'Ascendis Direct Testimony, at 14.

Q. CAN YOU PLEASE PROVIDE SOME EXAMPLES FROM FINANCIAL LITERATURE WHICH SUPPORT THE USE OF MULTIPLE COST OF COMMON EQUITY MODELS IN DETERMINING THE INVESTOR-REQUIRED RETURN?

A. Yes. In one example, Morin states:

> Each methodology requires the exercise of considerable judgment on the reasonableness of the assumptions underlying the methodology and on the reasonableness of the proxies used to validate a theory. The inability of the DCF model to account for changes in relative market valuation, discussed below, is a vivid example of the potential shortcomings of the DCF model when applied to a given company. Similarly, the inability of the CAPM to account for variables that affect security returns other than beta tarnishes its use.
>
> **No one individual method provides the necessary level of precision for determining a fair return, but each method provides useful evidence to facilitate the exercise of an informed judgment.** Reliance on any single method or preset formula is inappropriate when dealing with investor expectations because of possible measurement difficulties and vagaries in individual companies' market data. (emphasis added)

* * *

> The financial literature supports the use of multiple methods. Professor Eugene Brigham, a widely respected scholar and finance academician, asserts(footnote omitted)
>
> > Three methods typically are used: (1) the Capital Asset Pricing Model (CAPM), (2) the discounted cash flow (DCF) method, and (3) the bond-yield-plus-risk-premium approach. **These methods are not mutually exclusive – no method dominates the others**, and all are subject to error when used in practice. Therefore, when faced with the task of estimating a company's cost of equity, we generally use all three methods and then choose among them on the basis of our confidence in the data used for each in the specific case at hand. (emphasis added)
>
> Another prominent finance scholar, Professor Stewart Myers, in an

early pioneering article on regulatory finance, stated(footnote omitted):

> Use more than one model when you can. Because estimating the opportunity cost of capital is difficult, **only a fool throws away useful information**. That means you should not use any one model or measure mechanically and exclusively. Beta is helpful as one tool in a kit, to be used in parallel with DCF models or other techniques for interpreting capital market data. (emphasis added)

Reliance on multiple tests recognizes that no single methodology produces a precise definitive estimate of the cost of equity. As stated in Bonbright, Danielsen, and Kamerschen (1988), '*no single or group test or technique is conclusive.*' Only a fool discards relevant evidence. (italics in original) (emphasis added)

* * *

While it is certainly appropriate to use the DCF methodology to estimate the cost of equity, there is no proof that the DCF produces a more accurate estimate of the cost of equity than other methodologies. Sole reliance on the DCF model ignores the capital market evidence and financial theory formalized in the CAPM and other risk premium methods. **The DCF model is one of many tools to be employed in conjunction with other methods to estimate the cost of equity.** It is not a superior methodology that supplants other financial theory and market evidence. The broad usage of the DCF methodology in regulatory proceedings in contrast to its virtual disappearance in academic textbooks does not make it superior to other methods. The same is true of the Risk Premium and CAPM methodologies. (emphasis added) [188]

Finally, Brigham and Gapenski note:

> In practical work, *it is often best to use all three methods* – CAPM, bond yield plus risk premium, and DCF – and then apply judgment when the methods produce different results. People experienced in estimating equity capital costs recognize that both careful analysis and some very fine judgments are required. It would be nice to pretend that these judgments are unnecessary and to specify an easy, precise way of determining the exact cost of equity capital. Unfortunately, this is not possible. Finance is in large part a matter of judgment, and we simply must face this fact. (italics in

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[188] Morin, at 428-431.

original)[189]

In the academic literature cited above, three methods are consistently mentioned: the DCF, CAPM, and the RPM, all of which I used in my analyses.

Q. IN ADDITION TO THE ABOVE, WHY IS SOLE RELIANCE ON THE DCF MODEL PROBLEMATIC AT THIS TIME?

A. Traditional rate base/rate of return regulation, where a market-based common equity cost rate is applied to a book value rate base, presumes that M/B ratios are at unity or 1.00. However, that is rarely the case. Morin states:

> The third and perhaps most important reason for caution and skepticism is that application of the DCF model produces estimates of common equity cost that are consistent with investors' expected return only when stock price and book value are reasonably similar, that is, when the M/B is close to unity. As shown below, application of the standard DCF model to utility stocks understates the investor's expected return when the market-to-book (M/B) ratio of a given stock exceeds unity. This was particularly relevant in the capital market environment of the 1990s and 2000s where utility stocks were trading at M/B ratios well above unity and have been for nearly two decades. The converse is also true, that is, the DCF model overstates that investor's return when the stock's M/B ratio is less than unity. The reason for the distortion is that the DCF market return is applied to a book value rate base by the regulator, that is, a utility's earnings are limited to earnings on a book value rate base.[190]

As he explains, DCF models assume an M/B ratio of 1.0 and therefore under- or over-states investors' required return when market value exceeds or is less than book value, respectively. It does so because equity investors evaluate and receive their returns on the market value of a utility's common equity, whereas regulators authorize returns on the book value of common equity. This

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[189] Eugene F. Brigham and Louis C. Gapenski, Financial Management – Theory and Practice, 4th Ed. (The Dryden Press, 1985) at 256.

means that the market-based DCF will produce the total annual dollar return expected by investors only when market and book values of common equity are equal, a very rare and unlikely situation.

Q. WHY DO MARKET AND BOOK VALUES DIVERGE?

A. As discussed previously, market values can diverge from book values for a myriad of reasons as noted by Phillips[191] and Bonbright.[192]

Q. CAN THE UNDER- OR OVER-STATEMENT OF INVESTORS' REQUIRED RETURN BY THE DCF MODEL BE DEMONSTRATED MATHEMATICALLY?

A. Yes. Schedule DWD-15R demonstrates how a market-based DCF cost rate of 9.00%, when applied to a book value substantially below market value, will understate investors' required return on market value. As shown, there is no realistic opportunity to earn the expected market-based rate of return on book value. In Column [A], investors expect a 9.00% return on an average market price of $66.86 for Dr. Woolridge's proxy group. Column [B] shows that when Dr. Woolridge's 9.00% return rate is applied to a book value of $36.56,[193] the total annual return opportunity is $3.290. After subtracting dividends of $2.541, the investor only has the opportunity for $0.749 in market appreciation, or 1.12%. The magnitude of the understatement of investors' required return on market value using Dr. Woolridge's 9.00% cost rate is 4.08%, which is calculated by

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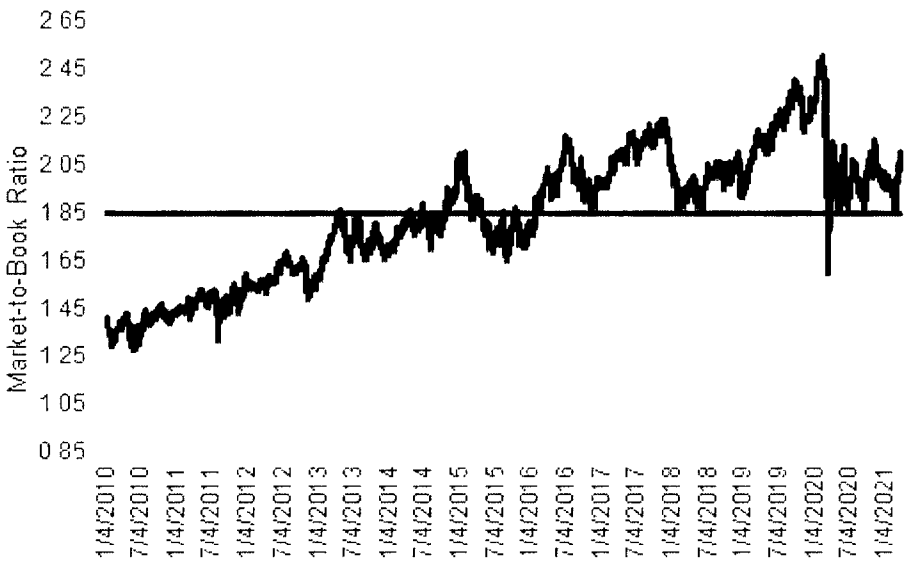
190 Morin, at 434.
191 Phillips, at 395.
192 Bonbright, at 334.
193 Representing a market-to-book ratio of 182.90%.

subtracting the market appreciation based on book value of 1.12% from Dr. Woolridge's expected growth rate of 5.20%.

Q. HOW DO M/B RATIOS OF DR. WOOLRIDGE'S PROXY GROUP COMPARE TO THEIR TEN-YEAR AVERAGE?

A. The M/B ratio of Dr. Woolridge's proxy group is currently close to its ten-year average. As shown in Chart 13, below, with the exception of early 2020, since early 2016, the M/B ratios of the Dr. Woolridge's proxy group have exceeded its ten-year average M/B ratio of approximately 1.84 times.

Chart 13: M/B Ratios of Dr. Woolridge's Electric Proxy Group Compared with Ten-Year Average[194]



The significance of this is that the ten-year average M/B ratio has always been higher than 1.0x, which means that DCF model results have consistently understated the investor-required return.

[194] Source: S&P Global Market Intelligence.

Q. IS THERE ANOTHER WAY TO QUANTIFY THE INACCURACY OF THE DCF MODEL WHEN M/B RATIOS ARE DIFFERENT THAN UNITY?

A. Yes. One can quantify the inaccuracy of the DCF model when M/B ratios are not at unity by estimating the implied DCF model results (based on a market-value capital structure) to reflect a book-value capital structure. This can be measured by first calculating the market value of each proxy company's capital structure, which consists of the market value of the company's common equity (shares outstanding multiplied by price) and the fair value of the company's long-term debt and preferred stock. All of these measures, except for price, are available in each company's SEC Form 10-K.

Second, one must de-leverage the implied cost of common equity based on the DCF. This is derived using the Modigliani / Miller equation[195] as illustrated in Schedule DWD-16R and shown below:

$$ku = ke - (((ku - i)(1 - t))\ D/E) - (ku - d)\ P/E \quad \text{[Equation 1]}$$

Where:

ku	=	Unlevered (i.e., 100% equity) cost of common equity;
ke	=	Market determined cost of common equity;
i	=	Cost of debt;
t	=	Income tax rate;
D	=	Debt ratio;
E	=	Equity ratio;
d	=	Cost of preferred stock; and
P	=	Preferred equity ratio.

[195] The Modigliani / Miller theorem is an influential element of economic theory and forms the basis for modern theory on capital structure. *See,* F. Modigliani, and M. Miller, *The Cost of Capital, Corporation Finance and the Theory of Investment,* The American Economic Review, Vol. 48, No. 3, (June 1958), at 261-297.

For example, using Dr. Woolridge's average proxy group-specific data, the equation becomes:

$$ku = 9.00\% - (((ku - 4.14\%)(1 - 21\%))\ 36.36\% / 63.20\%) - (ku - 5.33\%)\ 0.44\% / 63.20\%$$

Solving for ku results in an unlevered cost of common equity of 7.47%. Next, one must re-lever those costs of common equity by relating them to each proxy group's average book capital structure as shown below:

$$ke = ku + (((ku - i)(1 - t))\ D/E) + (ku - d)\ P/E \quad \text{[Equation 2]}$$

Once again, using Dr. Woolridge's average proxy group-specific data, the equation becomes:

$$ke = 7.47\% + (((7.47\% - 4.14\%)(1 - 21\%))53.32\%/46.01\%) + (7.47\% - 5.33\%)0.67\%/46.01\%$$

Solving for ke results in a 10.55% indicated cost of common equity relative to the book capital structure of the proxy group, which is an increase of 1.55% over Dr. Woolridge's indicated DCF result of 9.00%. The leverage-adjusted DCF result 10.55% is still not applicable to the Company, as it does not reflect the higher risk that SWEPCO faces relative to the proxy group given its smaller size, nor does it reflect the higher risk due to the Company's relative riskier bond rating.

Q. ARE YOU ADVOCATING A SPECIFIC ADJUSTMENT TO THE DCF RESULTS TO CORRECT FOR ITS MIS-SPECIFICATION OF THE INVESTOR-REQUIRED RETURN?

A. No. The purpose of this discussion was to demonstrate that like all cost of common equity models, the DCF has its limitations, and that the use of multiple cost of common equity models, in conjunction with informed expert judgment, provides a more accurate and reliable picture of the investor-required ROE than does a narrow evaluation of the results of one model.

C. Constant Growth DCF Model

Q. PLEASE SUMMARIZE DR. WOOLRIDGE'S APPLICATION OF THE CONSTANT GROWTH DCF MODEL.

A. For the dividend yield, Dr. Woolridge uses a current annual dividend and then divides that by the 30-, 90-, and 180-trading day average stock prices to derive a range of dividend yields between 3.7% and 3.9% and 3.8% to 4.0% using his and my proxy groups, respectively.[196] Dr. Woolridge reviewed a number of growth rates, including historical and projected DPS, book value per share ("BVPS"), and EPS growth rates as reported by *Value Line*; analysts' consensus EPS growth rate projections from Yahoo!, Zacks, and S&P Capital IQ; and an estimate of "Sustainable Growth" derived from data provided by *Value Line*.[197] Dr. Woolridge states that in arriving at his 9.15% and 9.00% DCF estimates for his

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196 Woolridge Direct Testimony, Exhibit JRW-7, page 2 of 6.

197 *Ibid.*, at 39-40.

and my proxy groups, respectively, he gave more weight to projected EPS growth rates[198] despite stating that analysts' projected growth rates in EPS are biased.[199]

Q. DO YOU AGREE WITH DR. WOOLRIDGE'S POSITION THAT ANALYSTS' EARNINGS GROWTH PROJECTIONS ARE CONSISTENTLY BIASED?

A. No, I do not. Dr. Woolridge argues analysts' earnings growth estimates are "overly optimistic and upwardly biased"[200] and asserts that "the DCF growth rate needs to be adjusted downward from the projected EPS growth rate"[201] as a result of that bias. Dr. Woolridge's position, however, is based on observations of the broad market; he has provided no evidence that any of the growth rates used in my (or his) DCF analyses are the result of a consistent and pervasive bias on the part of the analysts providing those projections. Notably, despite his view that they are biased, it was by "[g]iving primary weight to the projected EPS growth rate of Wall Street analysts" that Dr. Woolridge arrived at his assumed growth rates.[202]

Over the long run, there can be no growth in DPS without growth in EPS. Earnings expectations have a more significant, but not sole, influence on market prices than dividend expectations. Thus, the use of earnings growth rates in a DCF analysis provides a better match between investors' market appreciation expectations implicit in market prices and the growth rate component of the DCF. Consequently, earnings expectations have a significant influence on market prices which affect market price appreciation, and hence, the "growth" experienced by

198 *Ibid.*, at 40.
199 *Ibid.*, at 36-38.
200 *Ibid.*, at 36.
201 *Ibid.*, at 38.

investors. This should be evident even to relatively unsophisticated investors just by listening to financial news reports on radio, TV, or reading newspapers. In fact, Morin states:

> Because of the dominance of institutional investors and their influence on individual investors, analysts' forecasts of long-run growth rates provide a sound basis for estimating required returns. Financial analysts exert a strong influence on the expectations of many investors who do not possess the resources to make their own forecasts, that is, they are a cause of g. The accuracy of these forecasts in the sense of whether they turn out to be correct is not at issue here, as long as they reflect widely held expectations. As long as the forecasts are typical and/or influential in that they are consistent with current stock price levels, they are relevant. The use of analysts' forecasts in the DCF model is sometimes denounced on the grounds that it is difficult to forecast earnings and dividends for only one year, let alone for longer time periods. This objection is unfounded, however, because it is present investor expectations that are being priced; it is the consensus forecast that is embedded in price and therefore in required return, and not the future as it will turn out to be.
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> * * *
>
> Published studies in the academic literature demonstrate that growth forecasts made by security analysts represent an appropriate source of DCF growth rates, are reasonable indicators of investor expectations and are more accurate than forecasts based on historical growth. These studies show that investors rely on analysts' forecasts to a greater extent than on historic data only.[203]

However, while EPS is a significant factor influencing market prices, it is by no means the only factor that affects market prices, a fact recognized by Bonbright with regard to public utilities as discussed previously. In addition, studies performed by Cragg and Malkiel demonstrate that analysts' forecasts are superior to historical growth rate extrapolations. They state:

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202 *Ibid.*, at 40.
203 Morin, at 298.

> Efficient market hypotheses suggest that valuation should reflect the information available to investors. Insofar as analysts' forecasts are more precise than other types we should therefore expect their differences from other measures to be reflected in the market. It is therefore noteworthy that our regression results do support the hypothesis that analysts' forecasts are needed even when calculated growth rates are available. As we noted when we described the data, security analysts do not use simple mechanical methods to obtain their evaluations of companies. The growth-rate figures we obtained were distilled from careful examination of all aspects of the companies' records, evaluation of contingencies to which they might be subject, and whatever information about their prospects the analysts could glean from the companies themselves of from other sources. It is therefore notable that the results of their efforts are found to be so much more relevant to the valuation than the various simpler and more "objective" alternatives that we tried.[204]

In addition, Vander Weide and Carleton conclude:

> . . . our studies affirm the superiority of analyst's forecasts over simple historical growth extrapolations in the stock price formation process. Indirectly, this finding lends support to the use of valuation models whose input includes expected growth rates.[205]

Additionally, it does not really matter what the level of accuracy of those analysts' forecasts. What is important is that they influence investors and hence the market prices they pay. Moreover, there is no empirical evidence that investors, consistent with the EMH, would discount or disregard analysts' estimates of growth in EPS. Since investors are aware of the accuracy of such projections, as well as the literature supporting the superiority of such projection, security analysts' earnings growth projections should be used exclusively in a cost of common equity analysis.

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[204] John G. Cragg and Burton G. Malkiel, Expectations and the Structure of Share Prices (University of Chicago Press, 1982) Chapter 4.

[205] James H. Vander Weide and Willard T. Carleton, *Investor Growth Expectations: Analysts vs. History* (The Journal of Portfolio Management, Spring 1988) 78-82.

In addition to the empirical and academic support discussed previously in this Rebuttal Testimony regarding the superiority of analysts' EPS growth forecasts, there should be no concern about the use of analysts' forecasts in 2021. Burton G. Malkiel, the Chemical Bank Chairman's Professor of Economics at Princeton University is the author of the widely read national bestseller book on investing entitled, A Random Walk Down Wall Street (2011). In testimony before the Public Service Commission of South Carolina, in November 2002, Malkiel affirmed his belief in the superiority of analysts' earnings forecasts when he testified:

> With all the publicity given to tainted analysts' forecasts and investigations instituted by the New York Attorney General, the National Association of Securities Dealers, and the Securities & Exchange Commission, I believe the upward bias that existed in the late 1990s has indeed diminished. In summary, I believe that current analysts' forecasts are more reliable than they were during the late 1990s. *Therefore, analysts' forecasts remain the proper tool to use in performing a Gordon Model DCF analysis.* (Rebuttal testimony, South Carolina Electric and Gas Co., pp. 16-17, Docket No. 2002-223-E) (italics added)

As a practical matter, the October 2003 Global Research Analyst Settlement required financial institutions to insulate investment banking from analysis, prohibited analysts from participating in "road shows," and required the settling financial institutions to fund independent third-party research.[206] I have reviewed the Letters of Acceptance, Waiver, and Consent signed by financial

[206] The 2002 Global Financial Settlement resolved an investigation by the U.S. Securities and Exchange Commission and the New York Attorney General's Office of a number of investment banks related to concerns about conflicts of interest that might influence the independence of investment research provided by equity analysts.

institutions that were party to the Global Settlement, and found no reference to misconduct by analysts following the utility sector.

Moreover, pursuant to Regulation AC, which became effective in April 2003, analysts must certify that "...the views expressed in the report accurately reflect his or her personal views, and disclose whether or not the analyst received compensation or other payments in connection with his or her specific recommendations or views."[207] I further understand industry practice is to avoid conflicts of interest by ensuring that compensation is not directly or indirectly linked to the opinions contained in those reports. Dr. Woolridge has not explained why any of the analysts covering our respective proxy companies or the S&P 500 companies used in my market DCF would bias their projections despite those certification requirements. Considering that The Regulation Fair Disclosure and Global Analysts Research Settlements were more than 15 years ago, investors have been fully aware since then of the steps that have been taken to eliminate and prevent analysts' bias.

In addition, there is no empirical evidence that investors would disregard analysts' estimates of growth in earnings per share. *Do Analyst Conflicts Matter? Evidence from Stock Recommendations* examines whether conflicts of interest with investment banking [IB] and brokerage businesses induced sell-side analysts to issue optimistic stock recommendations and whether investors were misled by such biases. They conclude:

> Overall, our findings do not support the view that conflicted analysts are able to systematically mislead investors with

[207] Securities and Exchange Commission, 17 CFR PART 242 [Release Nos. 33-8193; 34-47384; File No. S7-30-02], RIN 3235-AI60 Regulation Analyst Certification.

optimistic stock recommendations.

Agrawal and Anup state:

> Overall, our empirical findings suggest that while analysts do respond to IB and brokerage conflicts by inflating their stock recommendations, the market discounts these recommendations after taking analysts' conflicts into account. These findings are reminiscent of the story of the nail soup told by Brealey and Myers (1991), except that here analysts (rather than accountants) are the ones who put the nail in the soup and investors (rather than analysts) are the ones to take it out. Our finding that the market is not fooled by biases stemming from conflicts of interest echoes similar findings in the literature on conflicts of interest in universal banking (for example, Kroszner and Rajan, 1994, 1997; Gompers and Lerner 1999) and on bias in the financial media (for examples, Bhattacharya et al. forthcoming; Reuter and Zitzewitz 2006). Finally, while we cannot rule out the possibility that some investors may have been naïve, our findings do not support the notion that the marginal investor was systematically misled over the last decade by analysts' recommendations.[208]

Finally, while Easton and Sommers' article, *Effect of Analysts' Optimism on Estimates of the Expected Rate of Return Implied by Earnings Forecasts* does state that, on average, the difference between the estimate of the expected rate of return based on analysts' earnings forecasts and the estimates based on current earnings realizations is 2.84%, they also state that analysts' accuracy[209] and optimism[210] in the implied estimates of the expected rate of return differs with firm size:

> ...the mean scaled absolute forecast error, a measure of the accuracy of the forecasts, declines monotonically from 0.102 for the decile of smallest firms to 0.012 for the decile of largest firms. Similarly, the median absolute scaled forecast error declines monotonically from 0.042 to 0.006.
>
> Analysts' optimism, measured as the mean (median) scaled forecast error, declines monotonically from -0.075 (-0.023) for the

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208 Anup Agrawal and Mark A. Chen, *Do Analysts' Conflicts Matter? Evidence from Stock Recommendations*, Journal of Law and Economics, August 2008, Vol. 51.

209 As measured by the mean (median) absolute forecast error.

210 As measured by the mean (median) forecast error.

decile of the smallest firms to -0.005 (-0.002) for the decile of the largest firms.[211]

In plain language, as firm size increases, analyst accuracy increases and analyst optimism (*i.e.,* bias) diminishes.

Q. HAVE YOU DETERMINED THE LEVELS OF FORECAST ERROR AND BIAS IN ANALYST PROJECTED EPS GROWTH RATES FOR COMPANIES COMPARABLE IN SIZE TO THE UTILITY PROXY GROUP?

A. Yes, I have. Using market capitalizations as of March 31, 2021, Dr. Woolridge's and my proxy group both fall into the eighth decile of market capitalizations as shown on Table 3, Panel A of the Easton and Sommers article.[212] Mean and median measures of forecast error (*i.e.,* accuracy) of 0.017 and 0.008, respectively, indicates a high level of analyst accuracy. The bias of analyst projected EPS growth rates for companies comparable in size to the average company in our proxy groups are -0.009 (mean) and -0.003 (median), indicating a low level of bias in analyst projected EPS growth rates.

Furthermore, two of my MRPs used in my CAPM use projected market returns which are derived by calculating a weighted DCF for the component companies of the S&P 500. The component companies of the S&P 500 are larger than the average company in the Utility Proxy Group, having an average market capitalization that corresponds with the ninth decile as provided by Table 3, Panel

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[211] Peter D. Easton and Gregory A. Sommers, *Effect of Analysts' Optimism on Estimates of the Expected Rate of Return Implied by Earnings Forecasts*, Journal of Accounting Research, Vol. 45 No. 5 (December 2007), at 1007.

[212] *Ibid*, at 1004.Table 3, Panel A: Descriptive statistics. Market capitalization deciles are assumed to be equivalent to the Duff & Phelps Cost of Capital Navigator.

A of the Easton and Sommers article.[213] Mean and median forecast errors for analyst projected EPS growth rates for the average company in the S&P 500 are 0.015, and 0.007, respectively, which are more accurate than even the small forecast errors which coincide with companies in the Utility Proxy Group. Likewise, mean and median measures of bias for companies in the S&P 500 are -0.007 and -0.002, respectively.

The analyst projected EPS growth rates I used to derive my DCF results for my proxy group and my projected return on the market are confirmed to have high accuracy and limited bias.

In view of the foregoing, the use of analysts' forecasts of EPS growth should be used exclusively when estimating the cost rate of common equity capital. Note that notwithstanding Dr. Woolridge's lengthy discussion about the bias and inaccuracy of security analysts' forecasts of EPS growth, he himself gave "primary weight" to them in arriving at his conclusion of a DCF-derived cost rate.[214]

Q. DO YOU AGREE WITH DR. WOOLRIDGE THAT HISTORICAL GROWTH RATES, OR DIVIDEND AND BOOK VALUE GROWTH RATES ARE APPROPRIATE MEASURES OF EXPECTED GROWTH FOR THE CONSTANT GROWTH DCF MODEL?[215]

A. No. I have already discussed the superiority of projected EPS growth rates for use in the DCF and will not repeat that discussion here. As to the applicability of historical growth rates, Dr. Woolridge points out himself that "to best estimate the

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213 *Ibid.*
214 Woolridge Direct Testimony, at 40.
215 *Ibid*, at 38-39.

cost of common-equity capital using the conventional DCF model, one must look to long-term growth rate expectations",[216] and I agree. The growth component of the Constant Growth DCF model is a forward-looking measure. To the extent historical growth influences investors' expectations of future growth, it already will be reflected in analysts' consensus earnings estimates. Professors Carleton and Vander Weide found "overwhelming evidence that consensus analysts' forecast of future growth is superior to historically oriented growth measures in predicting the firm's stock price."[217] Consequently, historical growth rates are not appropriate for the Constant Growth DCF model.

Regarding the applicability of DPS and BVPS growth rates in a DCF model analysis, Dr. Woolridge did not provide any empirical or academic support that investors indeed rely on those measures when calculating their required ROE. The lack of empirical and academic support for those growth rates are evidenced in the paucity of projected DPS and BVPS growth rates available to investors. Conversely, projected EPS growth rates are widely available from several reputable sources.

Q. DO YOU AGREE WITH DR. WOOLRIDGE'S USE OF A RETENTION GROWTH RATE?

A. No, I do not. My critiques and analyses dismissing the use of retention growth rates were presented in my response to Mr. Gorman. Those critiques apply equally to Dr. Woolridge's use of retention growth rates.

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216 *Ibid.*, at 34.

217 Vander Weide and Carleton, *Investor Growth Expectations: Analysts vs. History*, The Journal of Portfolio Management (Spring 1988).

Q. DO DR. WOOLRIDGE'S DCF RESULTS CORRECTLY REFLECT THE USE OF PROJECTED EPS GROWTH RATES?

A. No, they do not. In his DCF analysis Dr. Woolridge uses projected growth rates of 5.25% and 5.00%, based on an acceptable range of 5.00% to 5.50%, for his and my proxy groups, respectively. When we look to the range of growth rates based on the projected EPS growth rates from *Value Line*, Yahoo!, Zacks, and S&P Capital IQ, from pages 4 and 5 of Exhibit JRW-7, we find the ranges to be 5.2% to 6.0%, and 4.8% to 5.9%, for Dr. Woolridge and my proxy groups, respectively (*see also*, page 2 of Schedule DWD-17R.)[218] Taking the midpoint of those respective ranges results in corrected DCF results for Dr. Woolridge's and my proxy groups of 9.53% and 9.37%, respectively (see page 1 of Schedule DWD-17R).

Q. WHAT ARE YOUR CONCLUSIONS REGARDING DR. WOOLRIDGE'S DCF ANALYSIS?

A. As shown on Schedule DWD-17R, had Dr. Woolridge correctly relied on the projected EPS growth rates as shown in Exhibit JRW-7, DCF results of 9.53% and 9.37% would be indicated, which are similar to my updated DCF model results.

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[218] Please note, Dr. Woolridge considers both the mean and median figures as noted in footnote 22, page 40 of his direct testimony.

D. Capital Asset Pricing Model

Q. PLEASE DESCRIBE DR. WOOLRIDGE'S CAPM ANALYSIS AND RESULTS.

A. Dr. Woolridge combines a "normalized" risk-free rate of 2.50% and an MRP of 6.00% to the average Beta coefficient in his proxy group (0.85). In estimating his MRP of 6.00%, Dr. Woolridge reviews a series of studies that calculate the MRP using different methodologies; from which he places significant weight on the Duff & Phelps MRP (5.50%), KPMG MRP (6.25%), Fernandez survey (5.60%), and Damodaran MRP (4.63%).[219] His indicated ROE using these inputs is 7.60%.[220] Dr. Woolridge ultimately did not place any weight on his CAPM results in the determination of his ROE recommendation.[221]

Q. WOULD YOU LIKE TO COMMENT ON DR. WOOLRIDGE'S APPLICATION OF HIS CAPM?

A. Since Dr. Woolridge does not rely on the results of his CAPM for his ROE recommendation, and to reduce the scope of this Rebuttal Testimony, I will not address Dr. Woolridge's application of the CAPM. As Dr. Woolridge dismissed his own CAPM analysis, I would recommend that the Commission do the same.

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219 Woolridge Direct Testimony, at 51-52; Exhibit JRW-8, at 5.
220 *Ibid.*, at 54.
221 *Ibid.*

E. Adjustments to the Cost of Common Equity

Q. DOES DR. WOOLRIDGE REFLECT THE GREATER RELATIVE RISK OF THE COMPANY DUE TO ITS SMALLER SIZE COMPARED TO HIS PROXY GROUP?

A. No, he does not. Dr. Woolridge rejects the size premium for SWEPCO because the "survivorship bias" of returns and portfolio rebalancing overstate the size premium,[222] and utility stocks do not exhibit a significant size premium, as described by Wong, Roll, Ang and Damodaran.[223]

Q. PLEASE ADDRESS SURVIVORSHIP BIAS AS IT PERTAINS TO THE SMALL SIZE PREMIUM.

A. While the small size risk premium is a premium that attempts to measure the risk of smaller companies over larger companies, the risk, as measured by variance of returns, is ever-present. The survivorship and de-listing biases would only serve to increase the variance of the returns of those small companies, increasing risk, and therefore, the investor-required return. I discuss the applicability of survivorship bias to the U.S. market later in this testimony in terms of the MRP. Additionally, I did not use the entire indicated small size premium of 0.84%, but 0.20% to reflect the increased risk of SWEPCO relative to the proxy group.

Q. DR. WOOLRIDGE CITES TO AN ARTICLE FROM CLIFFORD ANG WHICH NOTES THAT DURING THE PERIOD FROM 1981 TO 2016

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222 *Ibid.*, at 80-81.

223 *Ibid*, at 81-83. I have previously addressed the flaws in Dr. Wong's size study earlier in this Rebuttal Testimony and will not repeat that discussion here.

SMALL CAPITALIZATION STOCKS UNDERPERFORMED LARGE CAPITALIZATION STOCKS.[224] PLEASE RESPOND.

A. As I discussed in my Direct Testimony, smaller companies face increased business risk as they are less equipped to cope with significant events that affect sales, revenues, and earnings, as the loss of a few larger customers will have a greater effect on a small company than a larger company.[225]

Reviewing data from the same source as Ang, it is clear that small capitalization stocks exhibit more volatility (*i.e.*, risk) in their returns than larger capitalization stocks. Table 16 presents the largest monthly gain and loss for each value-weighted decile for the period 1981 through February of 2021.

Table 16: Size and Volatility of Returns – Ang Study[226]

Decile:	1	2	3	4	5	6	7	8	9	10
Largest Gain:	29.5%	25.9%	21.1%	18.9%	19.0%	16.5%	16.9%	14.2%	14.8%	13.3%
Largest Loss:	-28.9%	-30.5%	-28.9%	-29.5%	-28.1%	-26.2%	-26.2%	-24.3%	-22.3%	-19.7%

While it may be true that smaller stocks underperformed larger stocks in the Ang study, risk is measured by volatility, not returns. Table 16 shows that smaller stocks exhibit higher risk than larger stocks as measured by volatility.

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224 Woolridge Direct Testimony, at 82.

225 D'Ascendis Direct Testimony, at 52.

226 Deciles in ascending order with one (1) representing the smallest stocks by market capitalization. Source: http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html#BookEquity.

Q. DOES DR. WOOLRIDGE REFLECT THE GREATER RELATIVE RISK OF THE COMPANY DUE TO ITS RISKIER BOND RATING AS COMPARED TO HIS PROXY GROUP?

A. No, he does not. Dr. Woolridge states that my credit risk adjustment is incorrect because: (1) it compares SWEPCO to the ratings for proxy group operating subsidiaries instead of the parent company ratings; and (2) I do not consider the fact that SWEPCO's S&P rating is higher than the proxy group, and on balance, this suggests the risk to the Company is similar to the proxy group.[227]

Q. IS IT APPROPRIATE TO COMPARE SWEPCO'S BOND RATING TO THE PROXY GROUP PARENT COMPANIES' BOND RATINGS?

A. No, it is not. First, comparing the rating of SWEPCO to the proxy group operating subsidiaries reflects an apples-to-apples comparison of credit risk, as opposed to using the proxy group credit ratings at the parent level, which could be impacted by non-utility operations. Dr. Woolridge and I both reflect that consideration given we both take into account the extent to which regulated electric operations are in place at the individual companies, as that is a necessary consideration in selecting a proxy group that appropriately reflects the risks that SWEPCO faces.

Q. IS IT COMMON FOR PARENT COMPANIES TO TYPICALLY BE RATED LOWER THAN THEIR OPERATING SUBSIDIARIES?

A. Yes, it is. As Moody's notes:

> Most HoldCos present their financial statements on a consolidated basis that blurs legal considerations about priority of creditors

[227] Woolridge Direct Testimony, at 84. I have accounted for the average Moody's and S&P ratings as discussed previously in this Rebuttal Testimony and will not repeat that discussion here.

> based on the legal structure of the family, and grid scoring is thus based on consolidated ratios. However, HoldCo creditors typically have a secondary claim on the group's cash flows and assets after OpCo creditors. We refer to this as structural subordination, because it is the corporate legal structure, rather than specific subordination provisions, that causes creditors at each of the utility and nonutility subsidiaries to have a more direct claim on the cash flows and assets of their respective OpCo obligors.[228]

Considering the importance of selecting a proxy group that appropriately reflects the risks facing SWEPCO, as reflected by regulated electric operations, with the fact that ratings at the regulated operating subsidiaries reflects those that have the most direct claims on those cash-flows, it is clear that the use of parent company ratings is inappropriate and does not reflect the same risks as investors in SWEPCO face.

Q. IS SWEPCO'S S&P BOND RATING OF A- LESS RISKY THAN THE AVERAGE BOND RATING FOR THE OPERATING SUBISDIARIES OF DR. WOOLRIDGE'S PROXY GROUP?

A. No, it is not. Dr. Woolridge's proxy group has an average S&P bond rating of A-, which is equivalent to SWEPCO's S&P bond rating. However, Dr. Woolridge's proxy group has an average Moody's bond rating of A3, which is less risky than SWEPCO's Moody's bond rating of Baa2. Given this, Dr. Woolridge should have considered a credit risk adjustment in this proceeding.

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228 Moody's Investors Service, *Rating Methodology, Regulated Electric and Gas Utilities*, June 23, 2017, at 22.

F. Critiques on Company Testimony

Q. DID DR. WOOLRIDGE HAVE ANY CRITIQUES OF YOUR ANALYSES?

A. Yes, he did. Dr. Woolridge's critiques of my analyses are summarized below: [229]

1. My expectation of higher interest rates and capital costs;
2. My exclusive use of projected EPS growth rates in my DCF analysis and the lack of weight I apply to the results;
3. My use of the ECAPM;
4. My PRPM analysis is based on the historical relationship between stocks and bonds;
5. My PRPM analysis produces high and variable equity cost rate estimates;
6. The use of historical MRPs and ERPs in my CAPM and RPM analyses;
7. My MRPs and ERPs are exaggerated because of unrealistic assumptions about future earnings and economic growth;
8. My use of a non-price regulated proxy group comparable in total risk to my utility proxy group; and
9. My application of a size premium to my indicated ROE.

I have already addressed critiques 1, 3, and 7 through 9 previously in my Rebuttal Testimony, so I will not address them again here. I will address the remaining critiques in turn below.

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[229] Woolridge Direct Testimony, at 57-59.

Q. IS DR. WOOLRIDGE CORRECT THAT YOU HAVE NOT APPLIED ANY WEIGHT TO YOUR DCF RESULTS?

A. No, he is not. As noted on page 6 of my Direct Testimony, the low end of my recommended range before adjustments (9.85%) was calculated by averaging the average model result (10.96%) with the lowest model result (8.73%). In calculating the low end of my range then, the lowest model result, the DCF result, is actually afforded more weight than any of the other results, as shown in Table 17, below.

Table 17: Weighting of Direct Testimony Model Results[230]

Method	Result	Weight	Weighted Result
DCF	8.73%	62.5%	5.45%
RPM	10.54%	12.5%	1.32%
CAPM	12.46%	12.5%	1.56%
Non-Regulated	12.12%	12.5%	1.52%
Total		100.0%	9.85%

Since I selected the bottom of my range in my Direct Testimony, the DCF has in fact been given more weight than any of the other results combined. Even though I gave significant weight to the DCF model results in this proceeding, I would caution the Commission to solely rely on one ROE model result in determining the ROE for the Company as discussed above.

Q. DR. WOOLRIDGE CITES TWO "PROBLEMS" WITH THE PRPM. PLEASE COMMENT.

A. The first "problem" relates to the so-called errors associated with the use of historical market returns to calculate ERPs. Specifically, he cites his discussion of the "Peso problem" or U.S. stock market survivorship bias, as well as what he

[230] Assumes equal weighting applied to RPM, CAPM and Non-Regulated approaches.

terms "unattainable return bias".[231] There are two flaws with this "problem." The first is that none of them are applicable to the individual electric company PRPM-derived ERPs and ROEs, as the individual company results are based on the historical monthly company-specific ERPs and not those of a broad-based index. Second, even relative to a broad-based index, these two "issues" are related to one another. Ibbotson® SBBI® 2013 Valuation Yearbook, Market Results for Stocks, Bonds, Bills, and Inflation 1926-2012 ("SBBI–2013") notes:

> One common problem in working with financial data is properly accounting for survivorship. In working with company-specific historical data, it is important for researchers to include data from companies that failed as well as companies that succeeded before drawing conclusions from elements of that data.
>
> The same argument can be made regarding markets as a whole. The equity risk premium data outlined in this book represent data on the United States stock market. The United States has arguably been the most successful stock market of the twentieth century. That being the case, might equity risk premium statistics based only on U.S. data overstate the returns of equities as a whole because they only focus on one successful market?
>
> In a recent paper, Goetzmann and Jorion study this question by looking at returns from a number of world equity markets over the past century.[6 (footnote omitted)] The Goetzmann-Jorion paper looks at the survivorship bias from several different perspectives. They conclude that once survivorship is taken into consideration the U.S. equity risk premium is overstated by approximately 60 basis points.[7 (footnote omitted)] The non-U.S. equity risk premium was found to contain significantly more survivorship bias.
>
> *While the survivorship bias evidence may be compelling on a worldwide basis, one can question its relevance to a purely U.S. analysis. If the entity being valued is a U.S. company, then the relevant data set should be the performance of equities in the U.S market.* (italics added)[232]

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231 Woolridge Direct Testimony, at 63-64.

232 SBBI-2013 Valuation, at 62.

Thus, given that the "entity being valued" is SWEPCO, a U.S. company, the relevant data should be the performance of the U.S. equity market, and given that the thrust of Dr. Woolridge's criticism of the PRPM relates to the company-specific PRPM results, this first "problem" is not applicable and irrelevant.

Dr. Woolridge's second "problem" relates to the actual PRPM-derived company-specific cost rates. He states on line 23 on page 62 of his direct testimony that the model "produces very high and variable equity cost rate estimates." He then notes that the range of results are from 7.62% to 13.38%, which makes no comparable sense.[233] Dr. Woolridge's issue, however, is that while he finds the range of PRPM results of 5.76% to be too variable, he finds that I should apply more weight to my DCF model results which range from 5.95% to 10.78%, or 4.83%.

Q. IN ADDITION TO SURVIVORSHIP BIAS, DR. WOOLRIDGE ALSO PROVIDES A LISTING OF "A MYRIAD OF EMPIRICAL PROBLEMS" WHICH PRODUCE "INFLATED ESTIMATES OF EXPECTED MARKET RISK PREMIUMS."[234] PLEASE COMMENT.

A. In addition to survivorship bias, which was addressed above, Dr. Woolridge mentions that the measure of central tendency; the historical time horizon; the change in risk and required return over time; the downward bias in bond historical returns; and unattainable return bias as his "myriad factors" that inflate the historical market return, and the risk premiums calculated from those returns.

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233 Woolridge Direct Testimony., at 63.

234 *Ibid.*

While he mentions them, he does not explain anything as to why these phenomena happen or how they affect the overall returns.

Regarding Dr. Woolridge's concern of the measure of central tendency used in my MRP, I note that financial literature endorses its use in several instances. John Y. Campbell, of Harvard University, states: "When returns are serially uncorrelated, the arithmetic average represents the best forecast of future return in any randomly selected future year."[235] As shown on pages 6-16 and 6-17 of SBBI-2020, returns on large stocks and ERPs have serial correlations of 0.00 and 0.01, respectively, showing serial uncorrelation.

Additionally, in SBBI-2020, regarding the use of the arithmetic mean, Duff & Phelps state:

> The equity risk premium data presented in this book are arithmetic average risk premiums as opposed to geometric average risk premiums. The arithmetic average equity risk premium can be demonstrated to be most appropriate when discounting future cash flows. For use as the expected equity risk premium in either the CAPM or the building-block approach, the arithmetic mean or the simple difference of the arithmetic means of stock market returns and riskless rates is the relevant number. This is because both the CAPM and the building-block approach are additive models, in which the cost of capital is the sum of its parts. The geometric average is more appropriate for reporting past performance because it represents the compound average return.

Clearly the use of the long-term historical arithmetic average MRP is appropriate.

Turning to the change in risk and required return over time, the downward bias in bond historical returns, and unattainable return bias, those are all a

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[235] John Y. Campbell, *Forecasting US Equity Returns in the 21st Century*, July 2001.

function of the historical time horizon. As to the appropriate time horizon to use in a historical MRP or ERP calculation; SBBI-2020 states:

> Our equity risk premium covers 1926 to the present. The original data source for the time series comprising the equity risk premium is the Center for Research in Security Prices. CRSP chose to begin its analysis of market returns with 1926 for two main reasons. CRSP determined that 1926 was approximately when quality financial data became available. They also made a conscious effort to include the period of extreme market volatility from the late 1920s and early 1930s; 1926 was chosen because it includes one full business cycle of data before the market crash of 1929.
>
> Implicit in using history to forecast the future is the assumption that investors' expectations for future outcomes conform to past results. This method assumes that the price of taking on risk changes only slowly, if at all, over time. This "future equals the past" assumption is most applicable to a random time-series variable. A time-series variable is random if its value in one period is independent of its value in other periods.
>
> The estimate of the equity risk premium depends on the length of the data series studied. A proper estimate of the equity risk premium requires a data series long enough to give a reliable average without being unduly influenced by very good and very poor short-term returns. When calculated using a long data series, the historical equity risk premium is relatively stable. Furthermore, because an average of the realized equity risk premium is quite volatile when calculated using a short history, using a long series makes it less likely that the analyst can justify any number he or she wants. The magnitude of how shorter periods can affect the result will be explored later in this chapter.
>
> Some analysts estimate the expected equity risk premium using a shorter, more recent period on the basis that recent events are more likely to be repeated in the near future; furthermore, they believe that the 1920s, 1930s, and 1940s contain too many unusual events. This view is suspect because all periods contain unusual events. Some of the most unusual events of the last 100 years took place quite recently, including the inflation of the late 1970s and early 1980s, the October 1987 stock market crash, the collapse of the high-yield bond market, the major contraction and consolidation of the thrift industry, the collapse of the Soviet Union, the development of the European Economic Community, the attacks of Sept. 11, 2001, and the more recent global financial crisis of 2008-

2009.

> It is even difficult for economists to predict the economic environment of the future. For example, if one were analyzing the stock market in 1987 before the crash, it would be statistically improbable to predict the impending short-term volatility without considering the stock market crash and market volatility of the 1929-1931 period.
>
> Without an appreciation of the 1920s and 1930s, no one would believe that such events could happen. The 94-year period starting with 1926 represents what can happen: It includes high and low returns, volatile and quiet markets, war and peace, inflation and deflation, and prosperity and depression. Restricting attention to a shorter historical period underestimates the amount of change that could occur in a long future period . Finally, because historical event-types (not specific events) tend to repeat themselves, long-run capital market return studies can reveal a great deal about the future. Investors probably expect unusual events to occur from time to time, and their return expectations reflect this.[236]

To this point, Dr. Woolridge cites the downward bias in bond historical returns, which references the 1940s and the immediate post-war period, when the Federal Reserve Bank ("Fed") artificially held down government bond yields, increasing historical MRPs for that period. It could be argued that in the period between 2008 and 2015, the Fed did the same (artificially held down lending rates) to spur growth. As Duff & Phelps stated above, without a view of the prior period, it would be improbable for an analyst to predict future events during similar circumstances. As far as unattainable return bias (that market returns cannot achieve the average returns), such comments are meaningless given that the large company common stocks have consistently earned over the 11.88% long-term average market return recently. Specifically, out of the last ten years,

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[236] SBBI–2020, at 10-23 to 10-24.

large company stocks have earned over 11.88% in seven of those years, as shown in Table 18, below.

Table 18: Large Capitalization Stocks Total Return from 2010-2019[237]

Year	Return
2010	15.06%
2011	2.11%
2012	16.00%
2013	32.39%
2014	13.69%
2015	1.38%
2016	11.96%
2017	21.83%
2018	-4.38%
2019	31.49%

In view of all of the foregoing, it is indeed appropriate to use long-term historical ERPs, derived from the arithmetic mean long-term historical return on large company common stocks, and the arithmetic mean long-term historical income return on long-term U.S. government securities, for cost of capital purposes.

VII. RESPONSE TO WALMART INC. WITNESS PERRY

Q. PLEASE SUMMARIZE MS. PERRY'S TESTIMONY REGARDING THE COMPANY'S ROE.

A. Ms. Perry recommends the Commission authorize an ROE no higher than 9.60% based on her review of authorized ROEs since 2017, both nationwide and within Texas. Ms. Perry also notes the impact to customers if the Commission were to authorize a 9.55% ROE as compared to my recommend ROE of 10.35%.[238]

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237 *Ibid.*, at Appendix A-1.

238 Perry Direct Testimony, at 8-13.

Because I have largely addressed these issues in Section III, and in response to Mr. Gorman, I will not repeat that discussion here. I will note, however, that the authorized ROE is a market-based analysis and is independent of the ultimate impact on customers. That said, I understand that the Commission has the difficult task of balancing the interests of ratepayers and investors in making its final decision. Lastly, as I have noted several times throughout this testimony, looking to recently authorized ROEs either nationwide or within Texas, fails to reflect the significantly abnormal and volatile financial and economic environment caused by COVID-19. As such, the sole reliance on those returns is misleading and will ultimately lead to an authorized ROE that does not reflect the investor-required return.

VIII. CONCLUSION AND RECOMMENDATION

Q. PLEASE SUMMARIZE YOUR REBUTTAL TESTIMONY.

A. In this Rebuttal Testimony, I updated my ROE models with market data as of March 31, 2021. The results of the ROE models produced indicated ranges of ROEs from 10.14% to 10.97% (unadjusted) and from 10.43% to 11.26% (adjusted).[239] Given these ranges, I maintain my initial recommendation of 10.35%, which, in light of the current capital markets, is reasonable, if not conservative.

I then discussed capital market conditions and determined that even in conditions where the stock market is at or near all-time highs and interest rates are low, utility investors are monitoring utility investments. Since utility investments

[239] D'Ascendis Direct Testimony, Schedule DWD-1R, at 2.

have been underperforming compared to the market, and have been riskier during the pandemic, utility investors are requiring higher returns.

Regarding the Opposing Witnesses' direct testimonies, I discussed my disagreements with their analyses, which I supported with citations to the academic literature and empirical analyses. I also responded to any critiques to my Direct Testimony, again, supporting my responses with citations to the academic literature and empirical analyses.

Q. SHOULD ANY OR ALL OF THE ARGUMENTS MADE BY THE OPPOSING WITNESSES PERSUADE THE COMMISSION TO LOWER THE RETURN ON COMMON EQUITY IT APPROVES FOR SWEPCO BELOW YOUR RECOMMENDATION?

A. No, they should not. My recommended cost of common equity of 10.35%, is both reasonable and conservative. It will provide the Company with sufficient earnings to enable it to attract necessary new capital efficiently and at a reasonable cost, to the benefit of both customers and investors.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.

Southwestern Electric Power Company
Recommended Capital Structure and Cost Rates
for Ratemaking Purposes

Type Of Capital	Ratios (1)	Cost Rate		Weighted Cost Rate
Long-Term Debt	50.63%	4.18%	(1)	2.11%
Common Equity	49.37%	10.35%	(2)	5.11%
Total	100.00%			7.22%

Notes:

(1) Company-Provided
(2) From page 2 of this Schedule.

Southwestern Electric Power Company
Brief Summary of Common Equity Cost Rate

Line No.	Principal Methods	Proxy Group of Fourteen Electric Companies
1.	Discounted Cash Flow Model (DCF) (1)	9.32%
2.	Risk Premium Model (RPM) (2)	10.70%
3.	Capital Asset Pricing Model (CAPM) (3)	12.03%
4.	Market Models Applied to Comparable Risk, Non-Price Regulated Companies (4)	11.81%
5.	Indicated Range of Common Equity Cost Rates before Adjustment for Company-Specific Risk	10.14% - 10.97%
6.	Size Risk Adjustment (5)	0.20%
7.	Credit Risk Adjustment (6)	0.09%
8.	Indicated Range of Common Equity Cost Rates after Adjustment	10.43% - 11.26%
9.	Recommended Common Equity Cost Rate	10.35%

Notes:
(1) From page 3 of this Schedule
(2) From page 18 of this Schedule
(3) From page 31 of this Schedule
(4) From page 36 of this Schedule
(5) Adjustment to reflect the Company's greater business risk due to its smaller size realtive to the Utility Proxy Group as detailed in Mr. D'Ascendis' direct testimony.
(6) Company-specific risk adjustment to reflect SWEPCO's greater credit risk compared to the Utility Proxy Group. The average of SWEPCO's Moody's and S&P's bond rating is riskier than the Utility Proxy Group's average bond rating. An upward adjustment of 1/3 of the spread between A2 and Baa2 public utility bond yields (as shown on page 21 of this Schedule) is appropriate.

Southwestern Electric Power Company
Indicated Common Equity Cost Rate Using the Discounted Cash Flow Model for the
Proxy Group of Fourteen Electric Companies

Proxy Group of Fourteen Electric Companies	[1] Average Dividend Yield (1)	[2] Value Line Projected Five Year Growth in EPS (2)	[3] Zack's Five Year Projected Growth Rate in EPS	[4] Bloomberg's Five Year Projected Growth Rate in EPS	[5] Yahoo' Finance Projected Five Year Growth in EPS	[6] Average Projected Five Year Growth in EPS (3)	[7] Adjusted Dividend Yield (4)	[8] Indicated Common Equity Cost Rate (5)
ALLETE, Inc	3 84 %	6 00 %	NA %	6.33 %	7.00 %	6.44 %	3 96 %	10.40 %
Alliant Energy Corporation	3 24	5 50	5 80	6 12	5 70	5.78	3.33	9.11
Ameren Corporation	2 94	6.00	7 10	7 64	7 50	7 06	3.04	10.10
Duke Energy	4.23	5 00	5 20	5 00	4 99	5 05	4.34	9 39
Edison International	4.52	12.00	4.30	4 55	(0 50)	6.95	4.68	11 63
Entergy Corporation	4.02	3.00	5 10	3 09	5 50	4.17	4.10	8 27
Evergy, Inc	3 86	8.00	5 90	7 27	5 65	6.70	3 99	10 69
IDACORP, Inc.	3.11	4.50	2.60	3 00	2 60	3 18	3.16	6.34
NorthWestern Corporation	4 19	2 50	4.40	4.46	4.57	3 98	4 27	8 25
OGE Energy Corporation	5.11	4.00	4.40	4.08	3 80	4 07	5.21	9 28
Otter Tail Corporation	3 64	7.00	NA	5.35	9.00	7 12	3 77	10.89
Pinnacle West Capital Corporation	4.29	4.50	3 40	3 66	3 50	3.76	4 37	8 13
Portland General Electric Company	3 73	4.00	13.40	6 82	13 40	9 40	3.91	13.31 (6)
Xcel Energy, Inc	2 90	6.00	6.20	6.24	6.30	6 19	2 99	9.18
							Average	9 36 %
							Median	9.28 %
							Average of Mean and Median	9.32 %

NA= Not Available
NMF= Not Meaningful Figure

Notes

(1) Indicated dividend at 03/31/2021 divided by the average closing price of the last 60 trading days ending 03/31/2021 for each company
(2) From pages 4 through 17 of this Schedule.
(3) Average of columns 2 through 5 excluding negative growth rates.
(4) This reflects a growth rate component equal to one-half the conclusion of growth rate (from column 6) x column 1 to reflect the periodic payment of dividends (Gordon Model) as opposed to the continuous payment Thus, for ALLETE, Inc , 3.84% x (1+(1/2 x 6.44%)) = 3.96%.
(5) Column 6 + column 7.
(6) POR's DCF results were excluded from the final average and median as they were more than 2 standard deviations above the proxy group's mean.

Source of Information

Value Line Investment Survey
www zacks.com Downloaded on 03/31/2021
www yahoo com Downloaded on 03/31/2021
Bloomberg Professional Services

ALLETE NYSE-ALE

RECENT PRICE 62.70 | P/E RATIO 19.6 (Trailing: 18.7 Median: 18.0) | RELATIVE P/E RATIO 0.91 | DIV'D YLD 4.1% | VALUE LINE

TIMELINESS 4 Lowered 2/26/21
SAFETY 2 New 10/1/04
TECHNICAL 4 Lowered 3/12/21
BETA .90 (1.00 = Market)

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$50-$117 $84 (35%)

2024-26 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	90	(+45%)	12%
Low	65	(+5%)	5%

Institutional Decisions

	2Q2020	3Q2020	4Q2020
to Buy	141	106	124
to Sell	136	135	124
Hld's(000)	37540	37215	37566

	High.	37.9	42.5	42.7	54.1	58.0	59.7	66.9	81.2	82.8	88.6	84.7	70.2
	Low	30.0	35.1	37.7	41.4	44.2	45.3	48.3	61.6	66.6	72.5	48.2	58.9

LEGENDS
0.60 x Dividends p sh divided by Interest Rate
Relative Price Strength
Options Yes
Shaded area indicates recession

Target Price Range 2024 2025 2026

% TOT. RETURN 2/21

	THIS STOCK	VL ARITH * INDEX
1 yr	-5.9	50.1
3 yr	0.2	45.4
5 yr	37.3	108.8

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26
24.50	25.23	27.33	24.57	21.57	25.34	24.75	24.40	24.60	24.77	30.27	27.01	27.78	29.10	23.99	22.44	*23.25*	*24.10*	Revenues per sh	*27.25*
3.85	4.14	4.42	4.23	3.57	4.35	4.91	5.01	5.35	5.68	6.79	7.08	6.59	7.37	7.24	7.52	*7.45*	*8.30*	"Cash Flow" per sh	*10.00*
2.48	2.77	3.08	2.82	1.89	2.19	2.65	2.58	2.63	2.90	3.38	3.14	3.13	3.38	3.33	3.35	*3.10*	*3.70*	Earnings per sh [A]	*4.75*
1.25	1.45	1.64	1.72	1.76	1.76	1.78	1.84	1.90	1.96	2.02	2.08	2.14	2.24	2.35	2.47	*2.52*	*2.60*	Div'd Decl'd per sh [B] ■ †	*2.90*
1.95	3.37	6.82	9.24	9.05	6.95	6.38	10.30	7.93	12.48	5.84	5.35	4.08	6.07	11.55	13.78	*9.35*	*3.70*	Cap'l Spending per sh	*6.75*
20.03	21.90	24.11	25.37	26.41	27.26	28.78	30.48	32.44	35.06	37.07	38.17	40.47	41.86	43.17	44.04	*44.65*	*45.95*	Book Value per sh [C]	*50.75*
30.10	30.40	30.80	32.60	35.20	35.80	37.50	39.40	41.40	45.90	49.10	49.60	51.10	51.50	51.70	52.10	*52.50*	*52.75*	Common Shs Outst'g [D]	*53.00*
17.9	16.5	14.8	13.9	16.1	16.0	14.7	15.9	18.6	17.2	15.1	18.6	23.0	22.2	24.7	18.3	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*16.5*
.95	.89	.79	.84	1.07	1.02	.92	1.01	1.05	.91	.76	.98	1.16	1.20	1.32	.94			Relative P/E Ratio	*.90*
2.8%	3.2%	3.6%	4.4%	5.8%	5.0%	4.6%	4.5%	3.9%	3.9%	4.0%	3.6%	3.0%	3.0%	2.9%	4.0%			Avg Ann'l Div'd Yield	*3.7%*
928.2	961.2	1018.4	1136.8	1486.4	1339.7	1419.3	1498.6	1240.5	1169.1	*1220*	*1270*	Revenues ($mill)	*1440*
93.8	97.1	104.7	124.8	163.4	155.3	159.2	174.1	172.4	174.2	*160*	*195*	Net Profit ($mill)	*245*
27.6%	28.1%	21.5%	22.6%	19.4%	11.3%	14.8%	--	14.8%	NMF	*NMF*	*NMF*	Income Tax Rate	*NMF*
2.7%	5.3%	4.4%	6.3%	2.0%	1.4%	.8%	.7%	1.3%	1.1%	*2.0%*	*2.0%*	AFUDC % to Net Profit	*1.0%*
44.3%	43.7%	44.6%	44.2%	46.3%	42.0%	41.0%	39.9%	38.6%	41.0%	*42.0%*	*41.0%*	Long-Term Debt Ratio	*43.0%*
55.7%	56.3%	55.4%	55.8%	53.7%	58.0%	59.0%	60.1%	61.4%	59.0%	*58.0%*	*59.0%*	Common Equity Ratio	*57.0%*
1937.2	2134.6	2425.9	2882.2	3388.9	3263.4	3507.4	3584.3	3632.8	3887.8	*4040*	*4115*	Total Capital ($mill)	*4725*
1982.7	2347.6	2576.5	3286.4	3669.1	3741.2	3822.4	3904.4	4377.0	4840.8	*5100*	*5055*	Net Plant ($mill)	*5300*
6.0%	5.6%	5.3%	5.2%	5.8%	5.8%	5.5%	5.8%	5.6%	5.3%	*5.0%*	*5.5%*	Return on Total Cap'l	*6.0%*
8.7%	8.1%	7.8%	7.8%	9.0%	8.2%	7.7%	8.1%	7.7%	7.6%	*7.0%*	*8.0%*	Return on Shr. Equity	*9.0%*
8.7%	8.1%	7.8%	7.8%	9.0%	8.2%	7.7%	8.1%	7.7%	7.6%	*7.0%*	*8.0%*	Return on Com Equity [E]	*9.0%*
2.9%	2.3%	2.2%	2.5%	3.6%	2.8%	2.4%	2.7%	2.3%	2.0%	*1.5%*	*2.5%*	Retained to Com Eq	*3.5%*
66%	71%	72%	67%	60%	66%	68%	66%	70%	74%	*81%*	*70%*	All Div'ds to Net Prof	*62%*

CAPITAL STRUCTURE as of 12/31/20
Total Debt $1796.9 mill **Due in 5 Yrs** $697.0 mill.
LT Debt $1593.2 mill **LT Interest** $65.3 mill
(LT interest earned: 3.0x)

Leases, Uncapitalized Annual rentals $6.0 mill

Pension Assets-12/20 $759.4 mill
Oblig $965.7 mill

Pfd Stock None

Common Stock 52,116,629 shs
as of 2/1/21
MARKET CAP: $3.3 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2018	2019	2020
% Change Retail Sales (KWH)	-.2	-1.5	-12.0
Avg Indust Use (MWH)	NA	NA	NA
Avg Indust Revs per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Winter (Mw)	1589	1573	1588
Annual Load Factor (%)	NA	NA	NA
% Change Customers (avg)	NA	NA	NA
Fixed Charge Cov. (%)	296	277	230

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '18-'20 to '24-'26
Revenues	5%	-1.0%	*1.5%*
"Cash Flow"	6.0%	4.5%	*5.0%*
Earnings	4.0%	2.5%	*6.0%*
Dividends	3.0%	3.5%	*3.5%*
Book Value	5.0%	4.5%	*3.0%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2018	358.2	344.1	348.0	448.3	1498.6
2019	357.2	290.4	288.3	304.6	1240.5
2020	311.6	243.2	293.9	320.4	1169.1
2021	*315*	*275*	*305*	*325*	*1220*
2022	*325*	*285*	*315*	*345*	*1270*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2018	.99	.61	.59	1.18	3.38
2019	1.18	.64	.60	.92	3.33
2020	1.28	.39	.78	.90	3.35
2021	*1.10*	*.50*	*.70*	*.80*	*3.10*
2022	*1.20*	*.60*	*.80*	*1.10*	*3.70*

QUARTERLY DIVIDENDS PAID [B] ■ †

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.535	.535	.535	.535	2.14
2018	.56	.56	.56	.56	2.24
2019	.5875	.5875	.5875	.5875	2.35
2020	.6175	.6175	.6175	.6175	2.47
2021	.63				

BUSINESS: ALLETE, Inc. is the parent of Minnesota Power, which supplies electricity to 146,000 customers in northeastern MN, & Superior Water, Light & Power in northwestern WI. Electric rev. breakdown: taconite mining/processing, 26%, paper/wood products, 9%, other industrial, 8%; residential, 12%, commercial, 13%; wholesale, 16% other, 16%. ALLETE Clean Energy (ACE) owns renewable energy projects. Acq'd U.S. Water Services 2/15; sold it 3/19. Generating sources: coal & lignite, 26%, wind, 13%, other, 5%; purchased, 56%. Fuel costs: 31% of revs. '20 deprec. rate: 3.2%. Has 1,400 employees. Chairman: Alan R. Hodnik. President & CEO: Bethany M. Owen. Inc.: MN. Address: 30 West Superior St., Duluth, MN 55802-2093. Tel.: 218-279-5000. Internet: www.allete.com

ALLETE's earnings are likely to decline this year. The service area of the company's primary utility subsidiary, Minnesota Power, is unusual among electric companies because it has a much-smaller residential sector and a much-larger industrial sector. Large industrial customers are still feeling the effects of the recession, and one company's plant remains shut. Taconite mines are not expected to return to full production until 2022. Minnesota Power will have a loss of revenues because a wholesale power sales agreement expired in April of 2020. The utility is earning a return on equity well below its allowed ROE of 9.25%, but because a rate application is not coming until November of 2021, this situation will not change this year. ALLETE Clean Energy (ACE), the renewable-energy subsidiary, is seeing increased competition and expects to incur additional expenses for business development. All told, management expects share net to wind up in a range of $3.00-$3.30 a share. This is below the $3.35 a share booked in 2020, which included a $0.16 charge in the June quarter for the refund of previously collected revenues.

The company expects a strong recovery in 2022. Management issued preliminary earnings guidance of $3.70-$4.00 a share, which is unusually early for ALLETE. Minnesota Power should get an interim rate increase at the start of the year after the filing in November of 2021. ACE should benefit from the addition of a 300-megawatt wind project that is scheduled for completion in late 2021. This subsidiary has also agreed to sell a 120-mw wind facility to Xcel Energy for $210 million when the project is completed in late 2022. The stock price is up slightly this year, in anticipation of a profit recovery next year.

The dividend hike in the first quarter was smaller than in recent years. The board of directors boosted the annual disbursement by $0.05 a share (2.0%). This reflects ALLETE's elevated payout ratio, which is above its target of 60%-65%.

The dividend yield of this untimely stock is about average for a utility. Total return potential is attractive for the 18-month period and average for the pull to 2024-2026.

Paul E. Debbas, CFA *March 12, 2021*

(A) Diluted EPS. Excl. nonrec. gains (losses). '05, ($1.84), '15, (46¢), '17, 25¢, '19, 26¢; losses on disc. ops. '05, 16¢, '06, 2¢, '18 & '19 EPS don't sum due to rounding. Next earnings report due early May. (B) Div'ds historically paid in early Mar., June, Sept. and Dec. ■ Div'd reinvest plan avail. † Shareholder invest. plan avail. (C) Incl. deferred charges. In '20 $9.23/sh. (D) In mill. (E) Rate base: Orig. cost. Depr. Rate allowed in MN on com. eq. in '18: 9.25%, earned on avg. com. eq., '20: 7.7%. Regulatory Climate: Average.

Company's Financial Strength	A
Stock's Price Stability	90
Price Growth Persistence	55
Earnings Predictability	85

ALLIANT ENERGY NDQ-LNT

RECENT PRICE 47.09 | P/E RATIO 19.5 (Trailing: 19.1 Median: 19.0) | RELATIVE P/E RATIO 0.91 | DIV'D YLD 3.4% | VALUE LINE

TIMELINESS 4 Lowered 3/5/21
SAFETY 2 Raised 9/28/07
TECHNICAL 3 Raised 3/12/21
BETA .85 (1.00 = Market)

18-Month Target Price Range

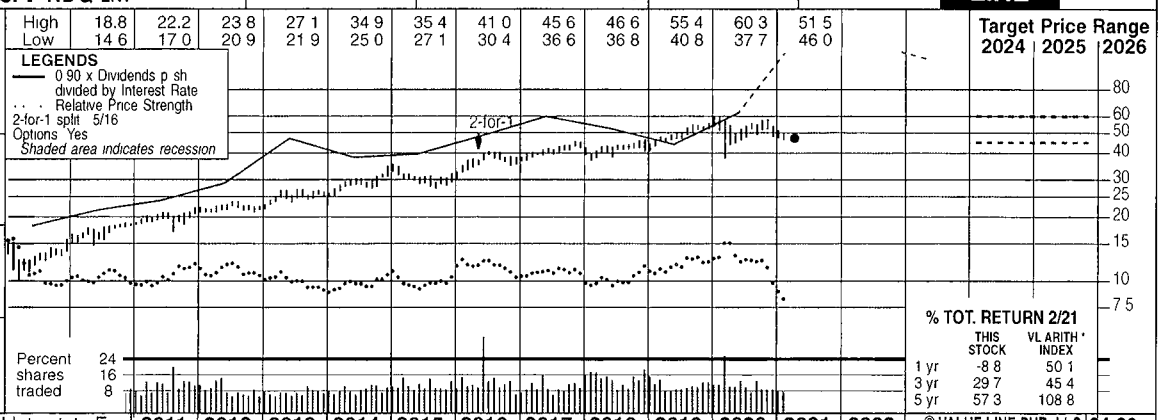
Low-High	Midpoint (% to Mid)
$38-$85	$62 (30%)

2024-26 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	60	(+25%)	10%
Low	45	(-5%)	3%

Institutional Decisions

	2Q2020	3Q2020	4Q2020
to Buy	227	249	261
to Sell	258	219	241
Hld's(000)	186056	182149	181812



	High	18.8	22.2	23.8	27.1	34.9	35.4	41.0	45.6	46.6	55.4	60.3	51.5
	Low	14.6	17.0	20.9	21.9	25.0	27.1	30.4	36.6	36.8	40.8	37.7	46.0

% TOT. RETURN 2/21

	THIS STOCK	VL ARITH * INDEX
1 yr	-8.8	50.1
3 yr	29.7	45.4
5 yr	57.3	108.8

Alliant Energy, formerly called Interstate Energy Corporation, was formed on April 21, 1998 through the merger of WPL Holdings, IES Industries, and Interstate Power. WPL stockholders received one share of Interstate Energy stock for each WPL share, IES stockholders received 1.14 Interstate Energy shares for each IES share, and Interstate Power stockholders received 1.11 Interstate Energy shares for each Interstate Power share.

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26
	16.51	13.94	14.77	15.10	14.34	14.58	14.62	14.97	14.89	13.67	*14.30*	*14.60*	Revenues per sh	*15.50*
	2.75	2.95	3.34	3.44	3.45	3.45	3.10	4.32	4.59	4.92	*5.10*	*5.35*	"Cash Flow" per sh	*5.90*
	1.38	1.53	1.65	1.74	1.69	1.65	1.99	2.19	2.33	2.47	*2.60*	*2.75*	Earnings per sh A	*3.25*
	.85	.90	.94	1.02	1.10	1.18	1.26	1.34	1.42	1.52	*1.61*	*1.70*	Div'd Decl'd per sh B ■ †	*2.05*
	3.03	5.22	3.32	3.78	4.25	5.26	6.34	6.34	6.28	5.17	*5.25*	*5.40*	Cap'l Spending per sh	*5.55*
	13.57	14.12	14.79	15.54	16.41	16.96	17.21	19.43	21.24	22.76	*24.35*	*25.80*	Book Value per sh C	*30.00*
	222.04	221.97	221.89	221.87	226.92	227.67	231.35	236.06	245.02	249.87	*255.00*	*260.00*	Common Shs Outst'g D	*270.00*
	14.5	14.5	15.3	16.6	18.1	22.3	20.6	19.1	21.2	21.2	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*16.0*
	.91	.92	.86	.87	.91	1.17	1.04	1.03	1.13	1.02			Relative P/E Ratio	*.90*
	4.3%	4.1%	3.7%	3.5%	3.6%	3.2%	3.1%	3.2%	2.9%	2.9%			Avg Ann'l Div'd Yield	*3.9%*
	3665.3	3094.5	3276.8	3350.3	3253.6	3320.0	3382.2	3534.5	3647.7	3416.0	*3650*	*3800*	Revenues ($mill)	*4180*
	304.4	337.8	382.1	385.5	380.7	373.8	455.9	512.1	557.2	614.0	*655*	*705*	Net Profit ($mill)	*865*
	19.0%	21.5%	12.4%	10.1%	15.3%	13.4%	12.5%	8.4%	10.8%	NMF	*NMF*	*NMF*	Income Tax Rate	*11.0%*
	--	--	--	--	6.5%	7.0%	7.6%	7.8%	7.8%	7.6%	*8.0%*	*8.0%*	AFUDC % to Net Profit	*8.0%*
	45.7%	48.4%	46.1%	49.7%	48.6%	52.8%	49.0%	53.4%	51.5%	54.3%	*54.0%*	*54.0%*	Long-Term Debt Ratio	*54.0%*
	50.9%	48.4%	50.8%	47.5%	51.4%	47.2%	48.6%	46.6%	48.5%	45.7%	*46.0%*	*46.0%*	Common Equity Ratio	*46.0%*
	5921.2	6476.6	6461.0	7257.2	7246.3	8177.6	8192.8	9832.0	10738	11362	*11500*	*12200*	Total Capital ($mill)	*14500*
	7037.1	7838.0	7147.3	6442.0	8970.2	9809.9	10798	12031	13087	13884	*14500*	*15100*	Net Plant ($mill)	*18150*
	6.4%	6.3%	7.0%	6.3%	6.3%	5.6%	6.8%	6.3%	6.4%	5.5%	*5.5%*	*6.0%*	Return on Total Cap'l	*6.0%*
	9.5%	10.1%	11.0%	10.6%	10.2%	9.7%	10.9%	11.2%	10.7%	10.8%	*10.5%*	*10.5%*	Return on Shr. Equity	*10.5%*
	9.5%	10.3%	11.3%	10.9%	10.2%	9.7%	6.4%	11.2%	10.7%	10.8%	*10.5%*	*10.5%*	Return on Com Equity E	*10.5%*
	3.3%	3.9%	4.9%	4.3%	3.6%	2.8%	4.0%	4.4%	4.2%	4.2%	*4.0%*	*4.0%*	Retained to Com Eq	*4.0%*
	67%	64%	57%	61%	65%	71%	63%	61%	61%	62%	*62%*	*62%*	All Div'ds to Net Prof	*63%*

CAPITAL STRUCTURE as of 12/31/20
Total Debt $7166.0 mill **Due in 5 Yrs** $1950.0 mill
LT Debt $6769.0 mill. **LT Interest** $270.0 mill
(LT interest earned 3.1x)

Pension Assets-12/20 $984.0 mill **Oblig.** $1351.0 mill
Pfd Stock $400.0 mill **Pfd Div'd** $10.2 mill
16,000,000 shs

Common Stock 249,868,415 shs

MARKET CAP: $11.8 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2018	2019	2020
% Change Retail Sales (KWH)	+2.0	-2.2	-2.3
Avg. Indust Use (MWH)	11830	11448	11134
Avg. Indust. Revs. per KWH (¢)	7.25	6.98	7.55
Capacity at Peak (Mw)	5459	5626	5496
Peak Load, Summer (Mw)	5459	5626	5496
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+4	+6	+6
Fixed Charge Cov. (%)	322	324	342

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '18-'20 to '24-'26
Revenues	-.5%	5%	*1.0%*
"Cash Flow"	5.5%	4.5%	*4.0%*
Earnings	6.0%	6.0%	*5.5%*
Dividends	7.0%	7.0%	*6.0%*
Book Value	4.5%	5.5%	*6.0%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	916.3	816.1	928.6	873.5	3534.5
2019	987.2	790.2	990.2	880.1	3647.7
2020	915.7	763.1	920.0	817.2	3416.0
2021	*950*	*800*	*975*	*925*	*3650*
2022	*980*	*835*	*1015*	*970*	*3800*

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	.52	.43	.87	.37	2.19
2019	.53	.40	.94	.46	2.33
2020	.72	.54	.94	.26	2.47
2021	*.62*	*.53*	*1.00*	*.45*	*2.60*
2022	*.66*	*.56*	*1.05*	*.48*	*2.75*

QUARTERLY DIVIDENDS PAID B ■†

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.315	.315	.315	.315	1.26
2018	.335	.335	.335	.335	1.34
2019	.355	.355	.355	.355	1.42
2020	.38	.38	.38	.38	1.52
2021	.403				

BUSINESS: Alliant Energy Corp., formerly named Interstate Energy, is a holding company formed through the merger of WPL Holdings, IES Industries, and Interstate Power. Supplies electricity, gas, and other services in Wisconsin, Iowa, and Minnesota. Elect. revs. by state: WI, 42%; IA, 57%; MN, 1%. Elect. rev. residential, 37%; commercial, 24%; industrial, 29%; wholesale, 7%; other, 3%. Fuel sources, 2020: coal, 23%; gas, 34%; other, 43%. Fuel costs 41% of revs. 2020 depreciation rate 6.4%. Estimated plant age: 18 years. Has approximately 3,375 employees. Chairman & Chief Executive Officer: John O. Larsen. Incorporated: Wisconsin. Address: 4902 N. Biltmore Lane, Madison, Wisconsin 53718. Telephone: 608-458-3311. Internet: www.alliantenergy.com.

We estimate that Alliant Energy's earnings will advance 5%-6% this year and next. As a reminder, the company does not have any pending rate cases at its two largest utility subsidiaries, Interstate Power and Light and Wisconsin Power and Light. That is because it reached a settlement in Wisconsin to hold rates flat in 2021 by using excess deferred taxes and fuel savings to offset a higher revenue requirement. The settlement will enable Alliant to earn a respectable return on investment without increasing base rates in Wisconsin for the second-consecutive year. With regard to Interstate Power and Light, the company expects to avoid filing rate cases for a while. This was made possible through collaboration with regulators and stakeholders in Iowa on key items such as deferring costs associated with the August derecho and the addition of a renewable energy rider. The renewable energy rider will allow IPL to recover expenses from the construction of various wind projects, including the Kossuth Wind Farm. Altogether, these production credits have leadership forecasting an effective tax rate of negative 20% in 2021.

Alliant continues make progress toward its clean energy goals. Natural gas and coal comprised just 49% of electric energy generation at IPL last year, down from 58% in 2019. Wind, nuclear, and solar (including purchased power) made up the remaining portion. At WPL, wind generation rose 65%, to 2,353 mw, while coal's share fell from 31% to 28%. Going forward, leadership plans to double down on renewables. It intends to add 400 mw of solar generation in Iowa by 2023. When combined with the 1,300 mw of owned wind and existing solar farms, that puts it on track to have more than 50% of Iowa power come from renewables by 2030. In Wisconsin, the utility plans to add at least 1000 mw of new wind and solar generation by 2023. It will also retire two existing coal-fired facilities—Columbia Energy Center in 2022 and the Edgewater Generating Station by the end of 2024.

These untimely shares do not stand out at present. The dividend yield (3.4%) is below average for an electric utility, and total return potential is uninspiring at the recent quotation.

Daniel Henigson, CFA *March 12, 2021*

(A) Diluted EPS. May not sum due to changes in share count. Excl. nonrecur. gains (losses) '11, (1¢), '12, (8¢). Next earnings rpt. due early May. (B) Dividends historically paid in mid-Feb., May, Aug., and Nov. ■ Div'd reinvest. plan avail. † Shareholder invest. plan avail. (C) Incl. deferred chgs. In '20 $73.0 mill., $0.29/sh. (D) In millions, adjusted for split. (E) Rate base: Orig. cost. Rates all'd on com. eq. in IA in '20: 10.0%, in WI in '20. Regul. Clim.: WI, Above Avg.; IA, Avg.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	75
Earnings Predictability	90

AMEREN NYSE-AEE

RECENT PRICE 71.49 | P/E RATIO 19.3 (Trailing: 20.4 Median: 18.0) | RELATIVE P/E RATIO 0.90 | DIV'D YLD 3.1% | VALUE LINE

TIMELINESS 4 Lowered 2/19/21
SAFETY 2 Raised 6/20/14
TECHNICAL 3 Lowered 2/12/21
BETA 80 (1 00 = Market)

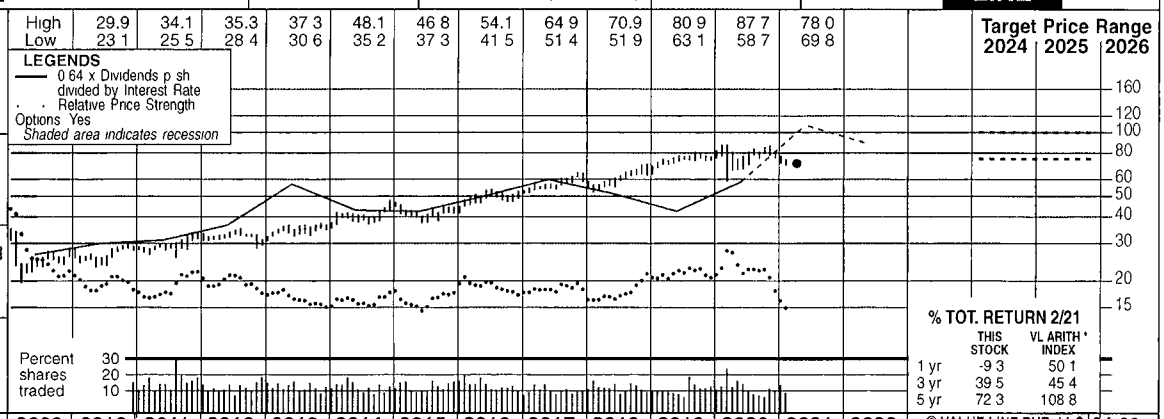
18-Month Target Price Range
Low-High Midpoint (% to Mid)
$56-$118 $87 (20%)

2024-26 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	100	(+40%)	12%
Low	75	(+5%)	5%

Institutional Decisions

	2Q2020	3Q2020	4Q2020
to Buy	220	242	266
to Sell	301	255	250
Hld's(000)	196379	188020	196751



2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26
33.12	33 30	36 23	36 92	29.87	31 77	31 04	28 14	24 06	24.95	25 13	25.04	25 46	25.73	24 00	22 87	*23.55*	*23.95*	Revenues per sh	*25.75*
6 10	6 02	6 76	6 44	6 06	6 33	5.87	5 87	5.25	5 77	6 08	6.59	6.80	7.64	7 83	8 08	*8.55*	*9.00*	"Cash Flow" per sh	*10.75*
3 13	2.66	2.98	2 88	2.78	2 77	2 47	2 41	2 10	2 40	2.38	2 68	2 77	3 32	3 35	3 50	*3.70*	*3.95*	Earnings per sh [A]	*4.75*
2.54	2.54	2 54	2.54	1.54	1 54	1.56	1.60	1 60	1 61	1 66	1 72	1 78	1 85	1 92	2 00	*2.20*	*2.34*	Div'd Decl'd per sh [B] ■	*2.90*
4 63	4.99	6 96	9.75	7.51	4.66	4 50	5 49	5 87	7 66	8 12	8 78	9 05	9 56	9 92	13 02	*14.40*	*11.70*	Cap'l Spending per sh	*12.75*
31.09	31 86	32.41	32 80	33 08	32.15	32 64	27 27	26 97	27.67	28.63	29.27	29.61	31.21	32.73	35.29	*37.45*	*39.70*	Book Value per sh [C]	*47.25*
204.70	206.60	208.30	212 30	237.40	240 40	242.60	242.63	242.63	242.63	242.63	242.63	242.63	244.50	246.20	253.30	*259.00*	*265.00*	Common Shs Outst'g [D]	*280.00*
16 7	19.4	17.4	14.2	9 3	9.7	11.9	13 4	16.5	16 7	17 5	18 3	20.6	18 3	22 1	22 2	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*18.0*
.89	1.05	92	.85	.62	.62	.75	.85	.93	.88	.88	.96	1.04	.99	1 18	1 14			Relative P/E Ratio	*1.00*
4.9%	4.9%	4.9%	6.2%	6.0%	5.8%	5.3%	5.0%	4.6%	4.0%	4.0%	3.5%	3.1%	3.0%	2.6%	2.6%			Avg Ann'l Div'd Yield	*3.4%*
7531.0	6828 0	5838 0	6053 0	6098 0	6076.0	6177 0	6291.0	5910 0	5794 0	*6100*	*6350*	Revenues ($mill)	*7200*
602.0	589.0	518.0	593.0	585 0	659 0	683 0	821 0	834.0	877.0	*965*	*1045*	Net Profit ($mill)	*1360*
37.3%	36.9%	37.5%	38.9%	38.3%	36.7%	38.2%	22.4%	17 9%	15 0%	*10.0%*	*10.0%*	Income Tax Rate	*10.0%*
5.6%	6.1%	7 1%	5.7%	5.1%	4.1%	5.6%	6.9%	5.8%	5.5%	*5.0%*	*5.0%*	AFUDC % to Net Profit	*4.0%*
45 3%	49 5%	45.2%	47 2%	49 3%	47 7%	49 2%	50 3%	52 1%	55 0%	*54.0%*	*53.5%*	Long-Term Debt Ratio	*50.5%*
53.7%	49.4%	53.7%	51.7%	49.7%	51.3%	49.8%	48 8%	47.1%	44.3%	*45.5%*	*46.0%*	Common Equity Ratio	*49.0%*
14738	13384	12190	12975	13968	13840	14420	15632	17116	20158	*21425*	*23000*	Total Capital ($mill)	*27100*
18127	16096	16205	17424	18799	20113	21466	22810	24376	26807	*29275*	*31050*	Net Plant ($mill)	*36700*
5 6%	6 0%	5 6%	5 8%	5.3%	6 0%	6.0%	6.4%	6.0%	5.3%	*5.5%*	*6.0%*	Return on Total Cap'l	*6.0%*
7 5%	8 7%	7 7%	8 7%	8 3%	9 1%	9.3%	10.6%	10.2%	9 7%	*10.0%*	*10.0%*	Return on Shr. Equity	*10.0%*
7.5%	8.8%	7.8%	8.7%	8.3%	9.2%	9.4%	10.7%	10.3%	9.7%	*10.0%*	*10.0%*	Return on Com Equity [E]	*10.0%*
2 8%	3 0%	1.9%	2 9%	2 5%	3 3%	3 4%	4 8%	4 4%	4 2%	*4.0%*	*4.0%*	Retained to Com Eq	*4.0%*
63%	66%	76%	67%	70%	64%	64%	56%	57%	57%	*59%*	*59%*	All Div'ds to Net Prof	*60%*

CAPITAL STRUCTURE as of 12/31/20
Total Debt $11576 mill **Due in 5 Yrs** $2393 mill
LT Debt $11078 mill. **LT Interest** $431 mill
(LT interest earned 3 5x)
Leases, Uncapitalized Annual rentals $9 mill
Pension Assets-12/20 $5510 mill
Oblig $5510 mill.
Pfd Stock $142 mill. **Pfd Div'd** $6 mill
807,595 sh $3 50 to $5 50 cum. (no par), $100 stated val , redeem $102 176-$110/sh , 616,323 sh 4 00% to 6 625%, $100 par, redeem $100-$104 30/sh
Common Stock 253,355,105 shs **as of 1/29/21**
MARKET CAP: $18 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2018	2019	2020
% Change Retail Sales (KWH)	+5 6	-3.5	-5.6
Avg Indust Use (MWH)	NA	NA	NA
Avg Indust Revs per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	NA	NA	NA
Fixed Charge Cov (%)	313	307	291

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '18-'20 to '24-'26
Revenues	-3.0%	-.5%	*1 0%*
"Cash Flow"	2.5%	6 5%	*5 5%*
Earnings	2 0%	8 0%	*6.0%*
Dividends	.5%	3.5%	*7.0%*
Book Value	- -	3 5%	*6 0%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	1585	1563	1724	1419	6291.0
2019	1556	1379	1659	1316	5910 0
2020	1440	1398	1628	1328	5794.0
2021	*1600*	*1450*	*1700*	*1350*	*6100*
2022	*1650*	*1500*	*1750*	*1450*	*6350*

Calendar	EARNINGS PER SHARE [A] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	.62	.97	1.45	.28	3.32
2019	78	.72	1.47	.38	3.35
2020	.59	.98	1.47	46	3.50
2021	*.65*	*.90*	*1.70*	*.45*	*3.70*
2022	*.70*	*.95*	*1.80*	*.50*	*3.95*

Calendar	QUARTERLY DIVIDENDS PAID [B] ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.44	.44	44	.4575	1 78
2018	4575	.4575	4575	475	1 85
2019	.475	.475	.475	.495	1.92
2020	495	.495	.495	515	2 00
2021	55				

BUSINESS: Ameren Corporation is a holding company formed through the merger of Union Electric and CIPSCO Has 1 2 million electric and 127,000 gas customers in Missouri, 1 2 million electric and 813,000 gas customers in Illinois Discontinued nonregulated power-generation operation in '13 Electric revenue breakdown residential, 43%, commercial, 32%, industrial, 8%, other, 17%. Generating sources coal, 67%; nuclear, 19%; hydro & other, 6%, purchased, 8% Fuel costs 22% of revenues '20 reported deprec rates 3%-4% Has 9,200 employees Chairman, President & CEO. Warner L Baxter Inc Missouri Address One Ameren Plaza, 1901 Chouteau Ave , P O Box 66149, St Louis, Missouri 63166-6149. Tel 314-621-3222 Internet www.ameren com

Ameren's earnings will likely advance at a solid pace in 2021. The company will benefit from a gas rate increase in Illinois and a full year's effect of an electric tariff hike that took effect in Missouri in April. Electric sales in Missouri should benefit from a recovering economy. The utility will earn a return on wind capacity that was placed into service in late 2020 and 2021. Our share-net estimate is within Ameren's targeted range of $3.65-$3.85.

A rate case was concluded, and another is upcoming. Ameren Illinois was granted a gas increase of $76 million, based on a 9.67% return on equity and a 52% common-equity ratio. New tariffs took effect in January. Ameren Missouri plans to file for electric and gas rate hikes by the end of this month. Rate relief in Missouri should help boost profits in 2022.

Ameren gave stockholders a pleasant surprise with a dividend increase in the first quarter. In recent years, the board of directors has boosted the disbursement in the fourth period. This occurred in 2020, with a hike of $0.02 a share (4.0%) quarterly. The directors followed with a raise of $0.035 a share (6.8%) in this quarter. Ameren's goals are for increases to be in a range of 6%-8% annually (matching its target for earnings growth), with a payout ratio of 55%-70%.

The company is issuing equity to help finance its capital budget. Ameren raised $115 million in early 2021 to settle a forward sale. The dividend-reinvestment and other stock plans should provide $100 million annually. Also, the company plans to issue $150 million in 2021 and $300 million each year from 2022 through 2025.

The Callaway nuclear unit is out of service. Ameren will spend about $65 million to replace parts of the generator. This matter is not expected to affect financial results significantly, but bears watching in case the plant's expected return to service is delayed beyond early July.

The dividend yield of this untimely equity is below the utility mean. This was among a minority of utility issues to advance in price in 2020. The quotation has retreated in 2021, but the valuation remains high. Total return potential is good for the 18-month span, but unspectacular for the 3- to 5-year period.

Paul E. Debbas, CFA *March 12, 2021*

(A) Diluted EPS. Excl nonrec gain (losses) '05, (11¢); '10, ($2 19), '11, (32¢), '12, ($6 42), '17, (63¢); gain (loss) from disc ops '13, (92¢), '15, 21¢. Next earnings report due mid-May (B) Div'ds paid late Mar , June, Sept , & Dec ■ Div'd reinvest plan avail (C) Incl intang In '20 $5 97/sh (D) In mill (E) Rate base Orig cost depr Rate allowed on com eq in MO in '20 elec , none, in '11 gas, none, in IL in '14 elec , 8 7%, in '21 gas, 9 67%, earned on avg com eq , '20 10 2% Regulatory Climate MO, Average, IL, Below Average

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	80
Earnings Predictability	90

DUKE ENERGY NYSE-DUK

RECENT PRICE 93.16 | P/E RATIO 22.5 (Trailing: 18.8 Median: 18.0) | RELATIVE P/E RATIO 1.10 | DIV'D YLD 4.2% | VALUE LINE

TIMELINESS 3 New 2/12/21
SAFETY 2 New 6/1/07
TECHNICAL 4 New 2/12/21
BETA 85 (1 00 = Market)

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$64-$142 $103 (10%)

2024-26 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	120	(+30%)	10%
Low	90	(-5%)	4%

Institutional Decisions

	1Q2020	2Q2020	3Q2020
to Buy	682	699	686
to Sell	723	666	702
Hld's(000)	473369	471851	464090

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
High							55 8	66 4	71 1	75.5	87 3	90.0	87 8	91.8	91 4	97 4	103 8	94 6
Low							46.4	50 6	59 6	64 2	67 1	65.5	70 2	76 1	72 0	82 5	62 1	87 6

LEGENDS
0 54 x Dividends p sh divided by Interest Rate
Relative Price Strength
1-for-3 Rev split 7/12
Options Yes
Shaded area indicates recession

Target Price Range 2024 | 2025 | 2026

% TOT. RETURN 1/21

	THIS STOCK	VL ARITH.* INDEX
1 yr	-0 5	26 6
3 yr	35 2	29 4
5 yr	53 3	99 1

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26
	--	25 32	30 24	31.15	29.18	32.22	32.63	27 88	34 84	33.84	34.10	32.49	33.66	33 73	34 21	*31.40*	*32.40*	*33.30*	Revenues per sh	*36.50*
	--	7 86	8 11	7 34	7.58	8 49	8.68	6.80	8.56	9.11	9.40	9.20	10.01	10.49	12.13	*11.05*	*12.70*	*13.35*	"Cash Flow" per sh	*15.50*
	--	2 76	3 60	3 03	3 39	4 02	4.14	3.71	3.98	4.13	4.10	3.71	4.22	4.13	5.07	*4.05*	*5.15*	*5.45*	Earnings per sh [A]	*6.25*
	--	--	2.58	2.70	2.82	2.91	2.97	3 03	3 09	3 15	3.24	3.36	3 49	3 64	3 75	3 82	*3.90*	*3.98*	Div'd Decl'd per sh [B] ■	*4.25*
	--	8 07	7.43	10 35	9 85	10 84	9 80	7.81	7 83	7 62	9 83	11 29	11 50	12.91	15 17	*15.50*	*14.80*	*14.60*	Cap'l Spending per sh	*14.00*
	--	62 30	50.40	49.51	49.85	50.84	51.14	58.04	58.54	57.81	57.74	58.62	59.63	60.27	61 20	*60.65*	*61.95*	*63.40*	Book Value per sh [C]	*68.75*
	--	418.96	420.62	423 96	436 29	442 96	445 29	704 00	706 00	707 00	688 00	700 00	700 00	727 00	733 00	*764.00*	*764.00*	*764.00*	Common Shs Outst'g [D]	*764.00*
	--	--	16 1	17 3	13.3	12 7	13.8	17.5	17.4	17.9	18.2	21.3	19.9	19.4	17 7	*21.7*	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*17.0*
	--	--	85	1 04	89	.81	87	1.11	.98	94	92	1 12	1.00	1.05	.94	*1.10*			Relative P/E Ratio	*.95*
	--	--	4 4%	5.2%	6.2%	5 7%	5 2%	4.7%	4.4%	4.3%	4.3%	4 3%	4 2%	4.5%	4.2%	4.4%			Avg Ann'l Div'd Yield	*4.0%*
							14529	19624	24598	23925	23459	22743	23565	24521	25079	*24000*	*24750*	*25450*	Revenues ($mill)	*27800*
							1839 0	2136 0	2813.0	2934 0	2854 0	2560.0	2963.0	2928.0	3755.0	*3080*	*4065*	*4255*	Net Profit ($mill)	*4880*
							31.3%	30.2%	32 6%	30.6%	32.2%	31.0%	30 4%	14 2%	12.7%	*9.0%*	*12.0%*	*12.0%*	Income Tax Rate	*12.0%*
							23.2%	22.3%	8.8%	7.2%	9.2%	11.7%	12.3%	13.0%	7.9%	*11.0%*	*8.0%*	*8.0%*	AFUDC % to Net Profit	*8.0%*
							45.1%	47 0%	48.0%	47 7%	48 6%	52.6%	54 0%	53.8%	54.0%	*53.5%*	*54.0%*	*54.5%*	Long-Term Debt Ratio	*55.0%*
							54.9%	52 9%	52 0%	52.3%	51 4%	47.4%	46.0%	46 2%	44.1%	*44.5%*	*44.5%*	*44.0%*	Common Equity Ratio	*43.5%*
							41451	77307	79482	78088	77222	86609	90774	94940	101807	*103825*	*106900*	*110225*	Total Capital ($mill)	*121600*
							42661	68558	69490	70046	75709	82520	86391	91694	102127	*108475*	*114050*	*119175*	Net Plant ($mill)	*132200*
							5 6%	3 6%	4 6%	4 8%	4 8%	4.0%	4 3%	4 2%	4.8%	*4.5%*	*5.0%*	*5.0%*	Return on Total Cap'l	*5.0%*
							8 1%	5 2%	6.8%	7 2%	7 2%	6 2%	7 1%	6.7%	8 0%	*8.0%*	*8.0%*	*8.0%*	Return on Shr. Equity	*8.5%*
							8.1%	5.2%	6 8%	7.2%	7.2%	6 2%	7.1%	6 7%	8 3%	*8.0%*	*8.0%*	*8.5%*	Return on Com Equity [E]	*8.5%*
							2.2%	.9%	1.5%	1 7%	1.5%	6%	1.2%	1.0%	2 4%	*2.0%*	*2.0%*	*2.0%*	Retained to Com Eq	*2.5%*
							72%	82%	78%	76%	79%	91%	83%	84%	71%	*77%*	*76%*	*74%*	All Div'ds to Net Prof	*70%*

CAPITAL STRUCTURE as of 9/30/20
Total Debt $64143 mill **Due in 5 Yrs** $21030 mill
LT Debt $56049 mill **LT Interest** $2186 mill
Incl $969 mill capitalized leases
(LT interest earned 2 7x)
Leases, Uncapitalized Annual rentals $268 mill
Pension Assets-12/19 $8910 mill
Oblig $8231 mill
Pfd Stock $1962 mill **Pfd Div'd** $58 mill
40 mill shs 5 75%, cum , $25 liq value, redeemable at $25 50 prior to 6/15/24, 1 mill shs 4 875%, cum., $1000 liq. value.
Common Stock 735,958,560 shs **as of 10/31/20**
MARKET CAP: $69 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	-2 0	+3 9	- 9
Avg Indust Use (MWH)	2914	2953	2934
Avg Indust Revs per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (avg)	+1.3	+1 4	+1.5
Fixed Charge Cov (%)	272	218	233

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '24-'26
Revenues	1.0%	1 0%	*1 0%*
"Cash Flow"	3 5%	6 0%	*5 0%*
Earnings	3 0%	2 5%	*5 0%*
Dividends	3 0%	3 0%	*2 5%*
Book Value	2 0%	1 0%	*2 0%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	6135	5643	6628	6115	24521
2019	6163	5873	6940	6103	25079
2020	5949	5421	6721	*5909*	*24000*
2021	*6200*	*5650*	*6850*	*6050*	*24750*
2022	*6350*	*5800*	*7100*	*6200*	*25450*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	1.17	71	1.63	61	4 13
2019	1.24	1.12	1.82	89	5 07
2020	1 24	1 08	1 74	*d.01*	*4.05*
2021	*1.25*	*1.10*	*1.80*	*1.00*	*5.15*
2022	*1.35*	*1.15*	*1.90*	*1.05*	*5.45*

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.855	.855	.89	89	3 49
2018	.89	89	.9275	9275	3 64
2019	.9275	.9275	.945	945	3 75
2020	945	945	965	.965	3.82
2021	965				

BUSINESS: Duke Energy Corporation is a holding company for utilities with 7 6 mill elec customers in NC, FL, IN, SC, OH, & KY, and 1 6 mill gas customers in OH, KY, NC, SC, and TN Owns independent power plants & has 25% stake in National Methanol in Saudi Arabia Acq'd Progress Energy 7/12, Piedmont Natural Gas 10/16, discontinued most int'l ops in '16 Elec rev breakdown residential, 44%, commercial, 28%, industrial, 14%, other, 14% Generating sources gas, 29%, nuclear, 29%, coal, 22%, other, 1%, purchased, 19% Fuel costs 30% of revs. '19 reported deprec rate 3 1% Has 28,800 employees Chairman, President & CEO Lynn J Good Inc · DE Address 550 South Tryon St , Charlotte, NC 28202-1803 Tel 704-382-3853 Internet www.duke-energy.com

We have reinstated the Timeliness rank of Duke Energy stock. In November, we suspended the rank due to takeover speculation stemming from a report in *The Wall Street Journal* that NextEra Energy had approached Duke about a deal. This led to a 7% rise in the stock price that day, but since no transaction has emerged, we reinstated the rank.

Duke has announced an asset sale. The company agreed to sell a 19.9% stake in its Indiana utility for $2.05 billion in cash in two phases, in the second quarter of 2021 and by January of 2023. This requires approval of the Federal Energy Regulatory Commission. The proceeds would replace the $1 billion of equity Duke planned to add in 2021 and 2022 and be used for capital spending. Duke expects its long-term average annual earnings growth rate to rise from 4%-6% to 5%-7%.

The company reached a settlement regarding the regulatory treatment of coal ash remediation costs. If this is approved by the North Carolina commission, Duke will write off $1 billion of these costs, and will earn a return on equity that is 1.5 percentage points below its allowed ROE for the remainder. The company expects to take a $1 billion pretax charge against fourth-quarter results, which is *included* in our earnings presentation.

Profits should return to a more-typical level in 2021 and 2022. Without this item, we figure Duke would have earned $5.10 a share last year. In 2021, the company should benefit from rate relief and the absence of the coal ash charge. However, dilution from a $2.5 billion forward equity sale, which was settled in late 2020, will be a negative factor. Additional rate relief should produce bottom-line growth in 2022. Our figures do not reflect the pending deal with Duke Indiana.

Duke reached a settlement in Florida. If approved by the regulators, rates will be raised by $67 million, $49 million, and $79 million in 2022, 2023, and 2024, respectively, based on a 9.85% ROE and a 53% common-equity ratio. A ruling is expected in the second quarter.

The stock has an above-average dividend yield for a utility. However, dividend growth potential through 2024-2026 is half the industry norm.

Paul E. Debbas, CFA *February 12, 2021*

(A) Dil. EPS. Excl nonrec losses '12, 70¢, '13, 24¢; '14, 67¢, '17, 15¢, '18, 41¢, '20, $2.21, losses on disc ops '14, 80¢, '16, 60¢; '18 EPS don't sum due to rounding Next egs report due early May (B) Div'ds paid mid-Mar , June, Sept., & Dec ■ Div'd reinv. plan avail. (C) Incl intang. In '19 $44 37/sh (D) In mill., adj. for rev split. (E) Rate base Net orig. cost Rate all'd on com eq. in '18 in NC: 9 9%, in '19 in SC: 9.5%; in '20 in FL· 9 5%-11 5%, in '20 in IN: 9 7%, earn on avg com eq , '19 8 3% Reg Clim.. NC, SC Avg , OH, IN Above Avg

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	40
Earnings Predictability	95

EDISON INTERNAT'L NYSE-EIX

RECENT PRICE 61.67 | P/E RATIO NMF (Trailing:NMF Median: 14.0) | RELATIVE P/E RATIO NMF | DIV'D YLD 4.3% | VALUE LINE

TIMELINESS 3 Lowered 1/22/21
SAFETY 3 Lowered 11/23/18
TECHNICAL 4 Lowered 1/22/21
BETA 95 (1 00 = Market)

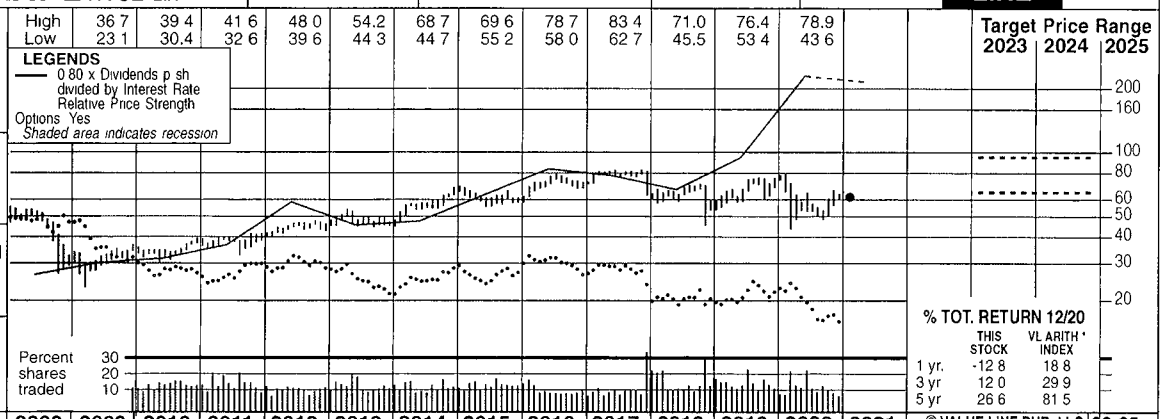
18-Month Target Price Range
Low-High Midpoint (% to Mid)
$45-$116 $81 (30%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	95	(+55%)	14%
Low	65	(+5%)	6%

Institutional Decisions

	1Q2020	2Q2020	3Q2020
to Buy	274	294	269
to Sell	304	264	264
Hld's(000)	318333	329959	334110



2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
31 30	36 38	38 74	40 25	43.31	37.98	38.09	39 16	36 41	38 61	41.17	35.37	36 43	37 81	38.85	34 11	*35.60*	*35.45*	Revenues per sh	*41.25*
3 79	6 99	7.25	7.60	8.08	7 96	8.41	9 03	9.63	8.80	9.95	10 35	10.43	11.03	4 69	9 15	*7.95*	*10.30*	"Cash Flow" per sh	*12.25*
69	3.34	3.28	3 32	3.68	3 24	3 35	3.23	4 55	3.78	4 33	4.15	3.94	4 51	d1.26	3 98	*1.70*	*4.05*	Earnings per sh [A]	*4.75*
80	1.02	1.10	1.18	1 23	1 25	1 27	1.29	1 31	1.37	1 48	1 73	1.98	2.23	2.43	2 48	2 58	*2.68*	Div'd Decl'd per sh [B] ■	*3.00*
5.32	5.73	7.78	8.67	8 67	10 07	13 94	14.76	12.73	11.05	11.99	12.97	11.46	11 75	13.84	13.47	*13.20*	*13.65*	Cap'l Spending per sh	*13.75*
18 57	20 30	23.66	25.92	29.21	30 20	32.44	30 86	28 95	30 50	33 64	34 89	36.82	35 82	32.10	36.75	*36.65*	*39.05*	Book Value per sh [C]	*44.00*
325 81	325.81	325.81	325.81	325 81	325 81	325 81	325.81	325 81	325.81	325.81	325.81	325.81	325.81	325.81	361.99	*379.00*	*395.00*	Common Shs Outst'g [D]	*395.00*
37 6	11 7	13 0	16 0	12 4	9.7	10.3	11 8	9.7	12 7	13 0	14.8	17 9	17 2	--	16.7	*NMF*		Avg Ann'l P/E Ratio	*16.5*
1.99	.62	.70	.85	.75	.65	66	.74	62	.71	68	.75	.94	.87	--	.89	*NMF*		Relative P/E Ratio	*.90*
3.1%	2.6%	2.6%	2 2%	2 7%	4.0%	3.7%	3.4%	3.0%	2.8%	2.6%	2.8%	2.8%	2.9%	3 8%	3 7%	4 3%		Avg Ann'l Div'd Yield	*3.8%*
12409	12760	11862	12581	13413	11524	11869	12320	12657	12347	*13500*	*14000*	Revenues ($mill)	*16300*						
1153.0	1112.0	1594.0	1344.0	1539.0	1480.0	1422.0	1603 0	d290 0	1477.0	*755*	*1730*	Net Profit ($mill)	*2000*						
32 1%	25 7%	14 3%	25.2%	22 4%	6 6%	11.1%	5.0%	--	NMF	*NMF*	*Nil*	Income Tax Rate	*Nil*						
16.9%	14.8%	8 5%	7.8%	5.8%	8.0%	6.8%	7.2%	--	11 1%	*24.0%*	*10.0%*	AFUDC % to Net Profit	*9.0%*						
51.8%	55.3%	45.2%	45.7%	44.1%	45.0%	41.8%	45 6%	53 6%	53 5%	*55.5%*	*57.0%*	Long-Term Debt Ratio	*59.0%*						
44.3%	40 6%	46 2%	46.2%	47.2%	46 7%	49.2%	45.8%	38.3%	39 9%	*39.5%*	*38.0%*	Common Equity Ratio	*37.5%*						
23861	24773	20422	21516	23216	24352	24362	25506	27284	33360	*35125*	*38600*	Total Capital ($mill)	*46500*						
24778	32116	30273	30455	32981	35085	37000	39050	41348	44285	*46900*	*49800*	Net Plant ($mill)	*57700*						
6 3%	6.0%	8.9%	7.3%	7.7%	7.1%	6.9%	7 3%	.1%	5.6%	*3.5%*	*5.5%*	Return on Total Cap'l	*5.5%*						
10 0%	10.0%	14.2%	11.5%	11 9%	11 1%	10.0%	11.6%	NMF	9 5%	*5.0%*	*9.5%*	Return on Shr. Equity	*10.5%*						
10.4%	10.5%	15 9%	12 5%	13 0%	12 0%	10 8%	12 7%	NMF	10.2%	*4.5%*	*10.0%*	Return on Com Equity [E]	*11.0%*						
6 5%	6.3%	11.4%	8.1%	8 8%	7 2%	5.6%	6.6%	NMF	4 1%	*NMF*	*3.5%*	Retained to Com Eq	*4.0%*						
40%	43%	32%	40%	37%	44%	53%	52%	NMF	63%	*NMF*	*68%*	All Div'ds to Net Prof	*64%*						

CAPITAL STRUCTURE as of 9/30/20
Total Debt $21738 mill **Due in 5 Yrs** $6123 mill
LT Debt $18958 mill **LT Interest** $891 mill.
(LT interest earned 2 0x)
Leases, Uncapitalized Annual rentals $107 mill
Pens. Assets-12/19 $3755 mill **Oblig** $4139 mill
Pfd Stock $2193 mill **Pfd Div'd** $121 mill
4,800,198 sh 4 08%-4 78%, $25 par, call $25 50-$28 75/sh , 3,250,000 sh variable, noncum , call $100, 1,250,000 sh 6 5%, cum , $100 liq value; 350,000 sh 6.25%, $1000 liq value, 460,012 sh 5 1%-5 75%, $2500 liq. value
Common Stock 378,513,912 shs **as of 10/20/20**
MARKET CAP: $23 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	+ 2	- 4	-2.7
Avg Indust Use (MWH)	643	667	657
Avg Indust Revs per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	23508	23766	22009
Annual Load Factor (%)	48 8	48 0	49 6
% Change Customers (yr-end)	+ 7	+ 6	+ 5
Fixed Charge Cov (%)	241	NMF	172

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	-1 0%	-1.0%	*2 0%*
"Cash Flow"	5%	-2 5%	*6 5%*
Earnings	-3 5%	-10 5%	*12 0%*
Dividends	7 0%	11 5%	*4 0%*
Book Value	2 0%	2 5%	*4 0%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	2463	2965	3672	3220	12320
2018	2564	2815	4269	3009	12657
2019	2824	2812	3741	2970	12347
2020	2790	2987	4644	*3079*	*13500*
2021	*2900*	*3100*	*4800*	*3200*	*14000*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	1.11	.85	1 43	1.12	4.51
2018	.82	84	1.57	d4 49	d1.26
2019	64	1 57	1.35	45	3.98
2020	50	.85	d.76	*1.11*	*1.70*
2021	*.65*	*1.10*	*1.40*	*.90*	*4.05*

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.5425	.5425	.5425	5425	2 17
2018	.605	.605	.605	605	2.42
2019	6125	6125	6125	.6125	2.45
2020	.6375	.6375	.6375	6375	2 55
2021	.6625				

BUSINESS: Edison International (formerly SCECorp) is a holding company for Southern California Edison Company (SCE), which supplies electricity to 5 1 mill customers in a 50,000-sq -mi area in central, coastal, & southern CA (excl Los Angeles & San Diego) Edison Energy is an energy svcs. co Disc Edison Mission Energy (independent power producer) in '12 Elec rev breakdown residential, 39%, commercial, 43%, industrial, 4%, other, 14% Generating sources nuclear, 8%, gas, 7%, hydro, 5%, purchased, 80% Fuel costs 39% of revs. '19 reported depr rate 3 6% Has 12,500 empls Chairman William P Sullivan Pres & CEO Pedro J Pizzaro Inc CA Address. 2244 Walnut Grove Ave , P O. Box 976, Rosemead, CA 91770 Tel . 626-302-2222. Web www edison com

Our 2020 earnings estimate for Edison International requires an explanation. The bottom line fell into the red in the third quarter due to a $2.33-a-share charge for expected liabilities stemming from wildfires and mudslides in Southern California Edison's service area in 2017 and 2018. We also include the effects of amortization of SCE's contributions to the state's wildfire insurance fund, which reduces quarterly earnings by $0.16 a share. Edison International is excluding these items from its 2020 "core" earnings guidance of $4.47-$4.62 a share. Note that the weak economy and lockdowns in California don't have a large effect on the company's income because SCE operates under a regulatory mechanism that decouples revenues and volume.

The utility is awaiting an order in its general rate case. SCE is seeking rate increases of $1.3 billion in 2021 (and asking that the order be retroactive to the start of the year), $452 million in 2022, and $524 million in 2023. Rate relief and the absence of the wildfire-liability reserve point to material earnings improvement this year. The California commission will consider the recovery of incremental wildfire mitigation costs in two separate tracks. SCE and other parties reached a settlement that, if approved by the commission, would raise rates $391 million to recover incremental wildfire mitigation costs from 2018 and 2019. A decision is expected in the current quarter. In March, the utility will apply for recovery of its incremental costs from 2020. Separately, the regulators have allowed the company to recover incremental wildfire insurance premium costs that were incurred through mid-2020.

An equity issuance is upcoming. Edison International expects to issue $1 billion of common stock in order to fund expected wildfire liability payments.

The board of directors raised the dividend, effective with the January payment. The increase was $0.10 a share (3.9%) annually.

This stock's dividend yield is above the utility average. Total return potential is attractive for the next 18 months and a bit above average for the 2023-2025 period.

Paul E. Debbas, CFA *January 22, 2021*

Company's Financial Strength	B+
Stock's Price Stability	75
Price Growth Persistence	50
Earnings Predictability	5

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(A) Dil EPS Excl nonrec gains (losses) '04, $2.12, '09, (64¢), '10, 54¢, '11, ($3 33), '13, ($1 12), '15, ($1 18), '17, ($1 37); '18, (15¢), '19, (21¢), gains (loss) from disc ops '12, ($5 11), '13, 11¢, '14, 57¢, '15, 11¢, '18, 10¢ '19 EPS don't sum due to chng. in shs Next earnings report due late Feb (B) Div'ds paid late Jan , Apr , July, & Oct. ■ Div'd reinv plan avail (C) Incl def'd charges In '19 $16 82/sh (D) In mill (E) Rate base. net orig cost Rate all'd on com. eq. in '20. 10 3%, earned on avg com. eq., '19 11.5%. Regulatory Climate Avg

ENTERGY CORP. NYSE-ETR

RECENT PRICE 87.76 | P/E RATIO 12.2 (Trailing: 12.7 Median: 13.0) | RELATIVE P/E RATIO 0.57 | DIV'D YLD 4.5% | VALUE LINE

TIMELINESS 4 Lowered 2/5/21
SAFETY 2 Raised 12/13/19
TECHNICAL 3 Raised 3/12/21
BETA 95 (1 00 = Market)

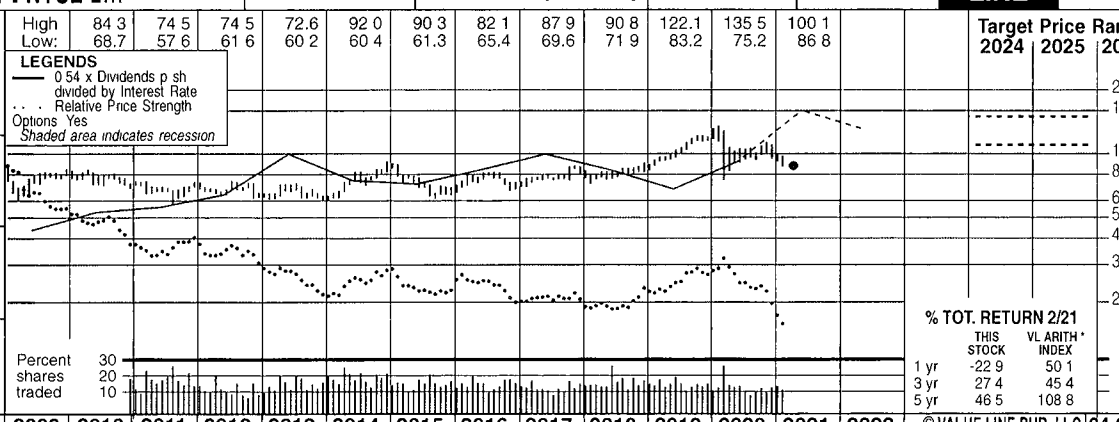
18-Month Target Price Range
Low-High Midpoint (% to Mid)
$68-$157 $113 (30%)

2024-26 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	150	(+70%)	*17%*
Low	110	(+25%)	*10%*

Institutional Decisions

	2Q2020	3Q2020	4Q2020
to Buy	283	262	312
to Sell	315	303	276
Hld's(000)	173722	173339	174980



2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26
46 61	53 94	59.47	69 15	56 82	64.27	63.67	57.94	63.86	69.71	64 54	60 55	61.35	58 23	54.63	50.51	*50.75*	*50.95*	Revenues per sh	*55.50*
8 18	10 69	11 73	12.89	13.29	16.54	17.53	15.98	16.25	17.68	17 71	18 72	16.70	16 50	17.19	18.21	*17.95*	*18.95*	"Cash Flow" per sh	*22.75*
4 40	5 36	5 60	6 20	6.30	6.66	7.55	6.02	4.96	5.77	5 81	6 88	5.19	5 88	6.30	6.90	*5.95*	*6.35*	Earnings per sh A	*7.50*
2.16	2.16	2 58	3 00	3 00	3.24	3.32	3.32	3.32	3.32	3 34	3 42	3 50	3 58	3.66	3.74	*3.86*	*4.08*	Div'd Decl'd per sh B ■ †	*4.80*
6.72	9.44	10 29	13.92	12 99	13.33	15.21	18 18	15.73	14.82	16 79	17 28	22 07	22 45	21.72	24.52	*17.15*	*17.30*	Cap'l Spending per sh	*19.00*
35 71	40 45	40 71	42.07	45.54	47.53	50.81	51.73	54.00	55 83	51 89	45 12	44.28	46.78	51.34	54.56	*57.45*	*60.30*	Book Value per sh C	*68.50*
216.83	202.67	193.12	189.36	189.12	178.75	176 36	177 81	178 37	179 24	178.39	179.13	180.52	189.06	199 15	200.24	*203.00*	*206.00*	Common Shs Outst'g D	*210.00*
16 3	14 3	19.3	16.6	12 0	11.6	9.1	11.2	13.2	12 9	12 5	10 9	15.0	13.8	16.5	15.3	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*17.5*
.87	.77	1.02	1.00	.80	.74	.57	71	74	68	.63	.57	75	75	.88	.78			Relative P/E Ratio	*.95*
3 0%	2 8%	2.4%	2.9%	4.0%	4.2%	4 9%	4.9%	5 1%	4 5%	4 6%	4.6%	4.5%	4.4%	3 5%	3 6%			Avg Ann'l Div'd Yield	*3.7%*
11229	10302	11391	12495	11513	10846	11074	11009	10879	10114	*10300*	*10500*	Revenues ($mill)	*11675*
1367 4	1091 9	904 5	1060.0	1061.2	1249.8	950.7	1092.1	1258 2	1406 7	*1225*	*1320*	Net Profit ($mill)	*1610*
17.3%	13.0%	26 7%	37 8%	2 2%	11 3%	1.8%	--	1.8%	NMF	*22.0%*	*22.0%*	Income Tax Rate	*22.0%*
8.9%	11.9%	10.1%	9 3%	7 4%	8 1%	14 7%	17.5%	16.7%	12.2%	*14.0%*	*12.0%*	AFUDC % to Net Profit	*11.0%*
52 2%	55 8%	55 1%	54.9%	57.8%	63.6%	63 6%	63 2%	62 0%	65 5%	*65.0%*	*64.0%*	Long-Term Debt Ratio	*64.0%*
46.4%	42.9%	43.6%	43 8%	40.8%	35 5%	35 5%	35 9%	37 1%	33.7%	*34.0%*	*35.0%*	Common Equity Ratio	*35.5%*
19324	21432	22109	22842	22714	22777	22528	24602	27557	32386	*34175*	*35400*	Total Capital ($mill)	*40500*
25609	27299	27882	28723	27824	27921	29664	31974	35183	38853	*39975*	*40975*	Net Plant ($mill)	*44800*
8.5%	6.4%	5.4%	6.0%	6 0%	6 9%	5 7%	5.8%	5 9%	5.6%	*4.5%*	*5.0%*	Return on Total Cap'l	*5.0%*
14.8%	11 5%	9.1%	10.3%	11.1%	15.1%	11 6%	12.0%	12.0%	12.6%	*10.5%*	*10.5%*	Return on Shr. Equity	*11.0%*
15 0%	11.6%	9 2%	10 4%	11 2%	15.2%	11.7%	12.2%	12 1%	12 7%	*10.5%*	*10.5%*	Return on Com Equity E	*11.0%*
8.4%	5 2%	3 0%	4.4%	4.8%	7 7%	3 9%	4 9%	5.2%	5 9%	*3.5%*	*4.0%*	Retained to Com Eq	*4.0%*
45%	56%	68%	58%	58%	50%	68%	61%	58%	55%	*65%*	*65%*	All Div'ds to Net Prof	*64%*

CAPITAL STRUCTURE as of 12/31/20
Total Debt $23997 mill **Due in 5 Yrs** $9103 6 mill
LT Debt $21206 mill. **LT Interest** $723.0 mill
Incl $174 6 mill. of securitization bonds.
(LT interest earned 2 4x)
Leases, Uncapitalized Annual rentals $65 7 mill
Pension Assets-12/20 $6854 4 mill
Oblig $9143 7 mill.
Pfd Stock $254 4 mill **Pfd Div'd** $18.3 mill
200,000 shs. 6 25%-7 5%, $100 par, 250,000 shs 8.75%, 1.4 mill shs 5 375%; all cum , without sinking fund
Common Stock 200,479,995 shs **as of 1/29/21**
MARKET CAP: $18 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2018	2019	2020
% Change Retail Sales (KWH)	+4 1	-1 4	-4 1
Avg Indust Use (MWH)	946	1070	1017
Avg Indust Revs per KWH(¢)	5 16	5 24	4 95
Capacity at Peak (Mw)	23121	23887	NA
Peak Load, Summer (Mw)	21587	21598	NA
Annual Load Factor (%)	65	64	NA
% Change Customers (yr-end)	+.6	+.8	+1.0
Fixed Charge Cov. (%)	NMF	165	202

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '18-'20 to '24-'26
Revenues	-1 5%	-4 0%	*5%*
"Cash Flow"	2 0%	--	*4 5%*
Earnings	--	3 0%	*3 0%*
Dividends	1 5%	2 0%	*4 5%*
Book Value	1 0%	-1.0%	*5 0%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	2724	2669	3104	2512	11009
2019	2610	2666	3141	2462	10878
2020	2427	2413	2904	2370	10114
2021	*2600*	*2500*	*2900*	*2300*	*10300*
2022	*2700*	*2600*	*2900*	*2300*	*10500*

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	73	1 34	3 42	39	5 88
2019	1 32	1 22	1.82	1 94	6.30
2020	59	1.79	2.59	1 93	6 90
2021	*1.15*	*1.50*	*2.60*	*.70*	*5.95*
2022	*1.25*	*1.60*	*2.75*	*.75*	*6.35*

QUARTERLY DIVIDENDS PAID B ■ †

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.87	.87	87	89	3 50
2018	.89	.89	.89	.91	3.58
2019	91	91	91	93	3 66
2020	.93	93	93	95	3 74
2021	.95				

BUSINESS: Entergy Corporation supplies electricity to 2 9 million customers through subsidiaries in Arkansas, Louisiana, Mississippi, Texas, and New Orleans (regulated separately from Louisiana) Distributes gas to 202,000 customers in Louisiana Has a nonutility subsidiary that owns four nuclear units (two no longer operating) Electric revenue breakdown: residential, 39%, commercial, 25%, industrial, 26%; other, 10%. Generating sources gas, 47%, nuclear, 29%; coal, 3%; purchased, 21% Fuel costs 24% of revenues '20 reported depreciation rate: 2 8%. Has 13,000 employees. Chairman & CEO Leo P Denault Incorporated. Delaware Address 639 Loyola Avenue, P O Box 61000, New Orleans, Louisiana 70161 Telephone. 504-576-4000 Internet www entergy com

Investors should not be alarmed by the earnings decline we estimate for Entergy in 2021. In the fourth quarter of 2020, the company benefited from a $396 million tax credit as a result of an IRS settlement. Entergy has booked similar credits in recent years, which is why its tax rate is usually low or negative. We are not assuming any such income in our 2021 estimate, which is within the company's guidance of $5.80-$6.10 a share. The utility should benefit from rate relief and growth in kilowatt-hour sales resulting from an improving economy. These factors point to higher profits in 2022, within Entergy's preliminary expectation of $6.15-$6.45 a share.

Storms and a cold spell have affected the company since August of last year. Restoration costs stemming from three hurricanes in 2020 amounted to an estimated $2.4 billion. Entergy is asking the state commissions for permission to issue securitized bonds to recover these costs. Last month, a winter storm caused $125 million-$140 million in restoration costs. In addition, the cold spell caused more than $400 million in elevated gas costs. We assume the company's utilities will be able to recover these expenses through the fuel-adjustment clause. They will work with the regulators on a recovery plan, given the magnitude of these costs.

Entergy received a disappointing rate order in Arkansas. The utility sought an increase of $73 million under the state's Formula Rate Plan (FRP), but was granted just $1 million. The commission agreed to a rehearing. Entergy also wants a five-year extension of the FRP. The regulators' decision is expected later this month.

Other regulatory matters are pending. Entergy Louisiana is asking the state commission for an extension of its FRP. Entergy Texas has filed to update its generation cost recovery rider to include new gas-fired generating assets.

Untimely Entergy stock has been one of the worst-performing electric utility issues in 2021. The price has declined 12%, and there doesn't appear to be a specific reason for the underperformance. The dividend yield is above the utility average, and the equity has appeal for the 18-month and 3- to 5-year periods.

Paul E. Debbas, CFA *March 12, 2021*

(A) Diluted EPS Excl nonrec losses '05, 21¢, '12, $1 26, '13, $1 14, '14, 56¢, '15, $6 99, '16, $10 14, '17, $2 91, '18, $1 25 Next earnings report due early May (B) Div'ds historically paid in early Mar , June, Sept , & Dec ■ Div'd reinvestment plan avail † Shareholder investment plan avail (C) Incl deferred charges In '20 $33 43/sh (D) In millions (E) Rate base: Net original cost Allowed ROE (blended) 9.95%; earned on avg com eq , '20 13 1% Regulatory Climate Average

Company's Financial Strength	B++
Stock's Price Stability	90
Price Growth Persistence	35
Earnings Predictability	65

EVERGY, INC. NYSE-EVRG

RECENT PRICE 53.96 | P/E RATIO 16.5 (Trailing: 19.8 / Median: NMF) | RELATIVE P/E RATIO 0.77 | DIV'D YLD 4.1% | VALUE LINE

TIMELINESS 4 Lowered 11/13/20
SAFETY 2 New 9/14/18
TECHNICAL 3 Raised 3/12/21
BETA 95 (1 00 = Market)

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$39-$97 $68 (25%)

2024-26 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	80	(+50%)	14%
Low	60	(+10%)	7%

Institutional Decisions

	2Q2020	3Q2020	4Q2020
to Buy	216	260	268
to Sell	312	279	291
Hld's(000)	184926	181645	188200

LEGENDS
..... Relative Price Strength
Options Yes
Shaded area indicates recession

High 61.1 67.8 76.6 55.6
Low: 50 9 54.6 42 0 51 9

Target Price Range 2024 | 2025 | 2026
128 96 80 64 48 40 32 24 16 12

Percent shares traded 36 24 12

% TOT. RETURN 2/21

	THIS STOCK	VL ARITH * INDEX
1 yr	-15 0	50 1
3 yr	—	45 4
5 yr	—	108 8

Evergy, Inc. was formed through the merger of Great Plains Energy and Westar Energy in June of 2018. Great Plains Energy holders received .5981 of a share of Evergy for each of their shares, and Westar Energy holders received one share of Evergy for each of their shares. The merger was completed on June 4, 2018. Shares of Evergy began trading on the New York Stock Exchange one day later.

CAPITAL STRUCTURE as of 12/31/20
Total Debt $10321 mill. **Due in 5 Yrs** $3410.8 mill
LT Debt $9190.9 mill **LT Interest** $330.9 mill
Incl. $45.3 mill capitalized leases.
(LT interest earned 3 0x)

Leases, Uncapitalized Annual rentals $18 5 mill

Pension Assets-12/20 $1799 1 mill
Oblig $2901 1 mill

Pfd Stock None

Common Stock 226,944,941 shs
as of 2/19/21
MARKET CAP: $12 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2018	2019	2020
% Change Retail Sales (KWH)	NA	NA	-3 9
Avg Indust Use (MWH)	NA	NA	NA
Avg Indust Revs per KWH (¢)	7 11	7.25	7 14
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	NA	NA	NA
Fixed Charge Cov (%)	322	305	286

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '18-'20 to '24-'26
Revenues	--	--	3 5%
"Cash Flow"	--	--	6 5%
Earnings	--	--	8 0%
Dividends	--	--	5 5%
Book Value	--	--	2.5%

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	600 2	893 4	1582	1199	4275.9
2019	1216	1221	1577	1131	5147.8
2020	1116	1184	1517	1094	4913.4
2021	*1250*	*1200*	*1550*	*1100*	*5100*
2022	*1250*	*1250*	*1600*	*1100*	*5200*

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	42	.56	1 32	.07	2 50
2019	.39	.57	1.56	28	2.79
2020	31	.59	1.60	.22	2.72
2021	*.60*	*.70*	*1.75*	*.35*	*3.40*
2022	*.50*	*.75*	*1.85*	*.40*	*3.55*

QUARTERLY DIVIDENDS PAID B ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	--	--	--	--	--
2018	40	40	46	.475	1.74
2019	.475	475	.475	505	1 93
2020	.505	.505	.505	.535	2.05
2021	.535				

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26
	--	--	--	--	--	--	--	16.75	22.71	21.66	*22.15*	*22.60*	Revenues per sh	*25.00*
	--	--	--	--	--	--	--	4.89	7.18	7.06	*7.80*	*8.05*	"Cash Flow" per sh	*9.25*
	--	--	--	--	--	--	--	2.50	2 79	2.72	*3.40*	*3.55*	Earnings per sh A	*4.25*
	--	--	--	--	--	--	--	1 74	1 93	2 05	*2.17*	*2.29*	Div'd Decl'd per sh B ■	*2.65*
	--	--	--	--	--	--	--	4.19	5.34	6.88	*8.15*	*8.00*	Cap'l Spending per sh	*8.00*
	--	--	--	--	--	--	--	39.28	37.82	38.50	*39.75*	*41.00*	Book Value per sh C	*45.25*
	--	--	--	--	--	--	--	255.33	226 64	226 84	*230.00*	*230.00*	Common Shs Outst'g D	*230.00*
	--	--	--	--	--	--	--	22.7	21.8	21.7	*Bold figures are*		Avg Ann'l P/E Ratio	*17.0*
	--	--	--	--	--	--	--	1 23	1 16	1 11	*Value Line*		Relative P/E Ratio	*.95*
	--	--	--	--	--	--	--	3.1%	3.2%	3.5%	*estimates*		Avg Ann'l Div'd Yield	*3.7%*
	--	--	--	--	--	--	--	4275.9	5147.8	4913.4	*5100*	*5200*	Revenues ($mill)	*5750*
	--	--	--	--	--	--	--	535 8	669 9	618.3	*795*	*830*	Net Profit ($mill)	*975*
	--	--	--	--	--	--	--	9.8%	12.6%	14.1%	*12.0%*	*12.0%*	Income Tax Rate	*12.0%*
	--	--	--	--	--	--	--	2.5%	2.5%	5.5%	*2.0%*	*2.0%*	AFUDC % to Net Profit	*2.0%*
	--	--	--	--	--	--	--	40.0%	50.6%	51 3%	*51.0%*	*51.5%*	Long-Term Debt Ratio	*51.5%*
	--	--	--	--	--	--	--	60.0%	49.4%	48.7%	*49.0%*	*48.5%*	Common Equity Ratio	*48.5%*
	--	--	--	--	--	--	--	16716	17337	17924	*18750*	*19375*	Total Capital ($mill)	*21500*
	--	--	--	--	--	--	--	18952	19346	20106	*20975*	*21775*	Net Plant ($mill)	*23900*
	--	--	--	--	--	--	--	4 0%	4 8%	4 5%	*5.0%*	*5.0%*	Return on Total Cap'l	*5.5%*
	--	--	--	--	--	--	--	5.3%	7.8%	7.1%	*8.5%*	*8.5%*	Return on Shr. Equity	*9.0%*
	--	--	--	--	--	--	--	5.3%	7.8%	7.1%	*8.5%*	*8.5%*	Return on Com Equity E	*9.0%*
	--	--	--	--	--	--	--	.6%	2 4%	1 8%	*3.0%*	*3.0%*	Retained to Com Eq	*3.5%*
	--	--	--	--	--	--	--	89%	69%	75%	*62%*	*63%*	All Div'ds to Net Prof	*62%*

BUSINESS: Evergy, Inc was formed through the merger of Great Plains Energy and Westar Energy in June of 2018 Through its subsidiaries (now doing business under the Evergy name), provides electric service to 1 6 million customers in Kansas and Missouri, including the greater Kansas City area Electric revenue breakdown residential, 39%, commercial, 33%, industrial, 12%, wholesale, 5%, other, 11% Generating sources· coal, 54%; nuclear, 17%, purchased, 29% Fuel costs 22% of revenues '20 reported deprec. rate: 3%. Has 5,100 employees Chairman· Mark A. Ruelle President & Chief Executive Officer David A Campbell Incorporated Missouri Address 1200 Main Street, Kansas City, Missouri 64105 Telephone· 816-556-2200 Internet· www evergy com

We have raised our 2021 earnings estimate for Evergy by $0.25 a share, to $3.40. Our previous estimate of $3.15 a share was near the low end of the company's guidance (on a GAAP basis) of $3.14-$3.24. Evergy has a nonregulated energy-marketing subsidiary that typically contributes $0.03-$0.07 a share to annual income. During the cold spell in Texas, this unit had a long position that benefited from the surge in gas and power prices. Potentially, Evergy might have earned about three times the upper end of its yearly range. We will include this benefit in our earnings presentation even though this is not included in management's guidance. Gas and purchased-power costs for Evergy's utilities rose sharply, but we assume that all of these will be recoverable through the fuel-adjustment clause. Other positive factors include an assumed return to normal weather patterns, volume growth as the economy improves, earnings from additional investment in the utility's transmission system, and effective expense control. Most of these factors should produce higher profits in 2022, despite a tough comparison in the first quarter.

Evergy reached an agreement with two investor groups, Bluescape Energy Partners and Elliott Investment Management. The investors had been pushing the company to look for a buyer. Indeed, in November, Reuters reported that the company turned down an offer from NextEra Energy. Instead, Bluescape will invest about $115 million in Evergy (through the purchase of newly issued stock) and will get warrants. Evergy appointed the head of Bluescape to its board, along with another board member. Bluescape and Elliott signed standstill agreements with Evergy, effective through the date of the 2022 annual meeting.

The company is proceeding with its Sustainability Transformation Plan. Evergy's capital budget for 2021 through 2025 is $9.2 billion. This includes $675 million for renewable-energy projects in 2023 and 2024.

This stock is untimely, but may interest income-oriented accounts. The dividend yield is about average for a utility. Total return potential is above average for the 18-month and 3- to 5-year periods.

Paul E. Debbas, CFA *March 12, 2021*

(A) Diluted EPS '18 EPS don't sum to full-year total due to change in shares, '19 due to rounding Next earnings report due early May (B) Dividends paid in mid-March, June, September, and December ■ Dividend reinvestment plan available (C) Incl intangibles In '20: $4204 8 mill., $18.54/sh. (D) In millions (E) Rate base. Original cost depreciated Rate allowed on common equity in Missouri in '18 none specified, in Kansas in '18. 9.3%. Earned on average common equity, '20 7 1% Regulatory Climate Average

Company's Financial Strength	B++
Stock's Price Stability	65
Price Growth Persistence	NMF
Earnings Predictability	NMF

IDACORP, INC. NYSE-IDA

RECENT PRICE 90.39 | P/E RATIO 19.2 (Trailing: 18.5 / Median: 16.0) | RELATIVE P/E RATIO 0.88 | DIV'D YLD 3.2% | VALUE LINE

TIMELINESS 2 Raised 8/28/20
SAFETY 1 Raised 1/22/21
TECHNICAL 4 Lowered 12/25/20
BETA .80 (1.00 = Market)

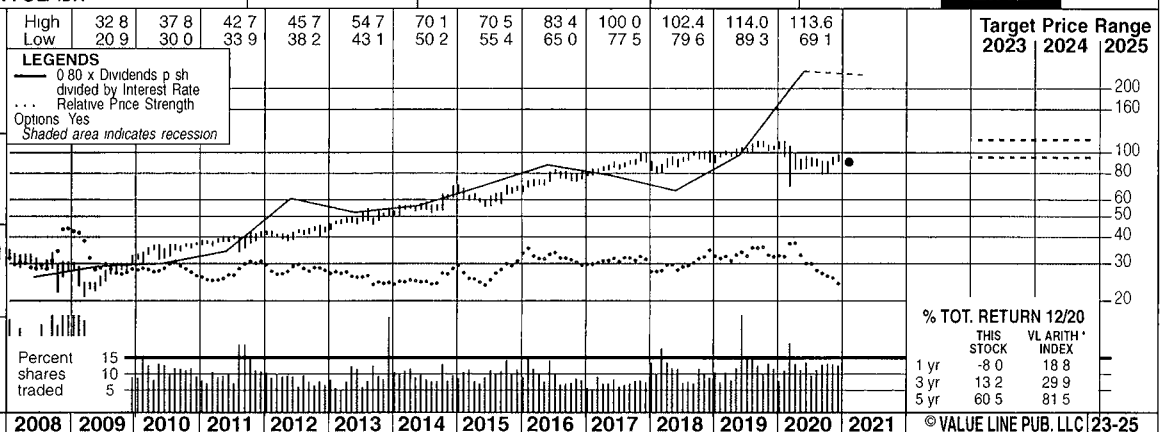
18-Month Target Price Range
Low-High Midpoint (% to Mid)
$73-$151 $112 (25%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	115	(+25%)	9%
Low	95	(+5%)	5%

Institutional Decisions

	1Q2020	2Q2020	3Q2020
to Buy	167	154	186
to Sell	174	166	147
Hld's(000)	39043	39111	38758



2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
20.00	20.15	21.23	19.51	20.47	21.92	20.97	20.55	21.55	24.81	25.51	25.23	25.04	26.76	27.19	26.70	*26.25*	*27.25*	Revenues per sh	*30.25*
4.12	3.87	4.58	4.11	4.27	5.07	5.35	5.84	5.93	6.29	6.58	6.70	6.86	7.50	7.85	8.07	*8.20*	*8.40*	"Cash Flow" per sh	*9.75*
1.90	1.75	2.35	1.86	2.18	2.64	2.95	3.36	3.37	3.64	3.85	3.87	3.94	4.21	4.49	4.61	*4.65*	*4.80*	Earnings per sh [A]	*5.75*
1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.37	1.57	1.76	1.92	2.08	2.24	2.40	2.56	2.72	*2.89*	Div'd Decl'd per sh [B] ■ †	*3.50*
4.73	4.53	5.16	6.39	5.19	5.26	6.85	6.76	4.78	4.68	5.45	5.84	5.89	5.66	5.51	5.53	*6.80*	*6.95*	Cap'l Spending per sh	*7.00*
23.88	24.04	25.77	26.79	27.76	29.17	31.01	33.19	35.07	36.84	38.85	40.88	42.74	44.65	47.01	48.88	*50.70*	*52.55*	Book Value per sh [C]	*58.75*
42.22	42.66	43.63	45.06	46.92	47.90	49.41	49.95	50.16	50.23	50.27	50.34	50.40	50.42	50.42	50.42	*50.45*	*50.45*	Common Shs Outst'g [D]	*50.45*
15.5	16.7	15.1	18.2	13.9	10.2	11.8	11.5	12.4	13.4	14.7	16.2	19.1	20.6	20.5	22.3	*20.0*		Avg Ann'l P/E Ratio	*18.0*
82	89	82	97	84	68	.75	72	79	75	.77	82	1.00	1.04	1.11	1.19	*1.00*		Relative P/E Ratio	*1.00*
4.1%	4.1%	3.4%	3.5%	4.0%	4.5%	3.4%	3.1%	3.3%	3.2%	3.1%	3.1%	2.8%	2.6%	2.6%	2.5%	2.9%		Avg Ann'l Div'd Yield	*3.4%*
1036.0	1026.8	1080.7	1246.2	1282.5	1270.3	1262.0	1349.5	1370.8	1346.4	*1325*	*1375*	Revenues ($mill)	*1525*
142.5	166.9	168.9	182.4	193.5	194.7	198.3	212.4	226.8	232.9	*235*	*240*	Net Profit ($mill)	*290*
--	--	13.4%	28.3%	8.0%	19.0%	15.5%	18.6%	7.1%	9.5%	*10.0%*	*10.0%*	Income Tax Rate	*10.0%*
19.1%	23.3%	20.3%	12.3%	13.6%	16.3%	16.3%	13.9%	15.2%	16.2%	*17.0%*	*17.0%*	AFUDC % to Net Profit	*16.0%*
49.3%	45.6%	45.5%	46.6%	45.3%	45.6%	44.8%	43.7%	43.6%	41.3%	*44.5%*	*44.5%*	Long-Term Debt Ratio	*44.5%*
50.7%	54.4%	54.5%	53.4%	54.7%	54.4%	55.2%	56.3%	56.4%	58.7%	*55.5%*	*55.5%*	Common Equity Ratio	*55.5%*
3020.4	3045.2	3225.4	3465.9	3567.6	3783.3	3898.5	3997.5	4205.1	4201.3	*4605*	*4770*	Total Capital ($mill)	*5375*
3161.4	3406.6	3536.0	3665.0	3833.5	3992.4	4172.0	4283.9	4395.7	4531.5	*4695*	*4865*	Net Plant ($mill)	*5325*
6.0%	6.8%	6.5%	6.4%	6.6%	6.2%	6.1%	6.3%	6.4%	6.5%	*6.0%*	*6.0%*	Return on Total Cap'l	*6.5%*
9.3%	10.1%	9.6%	9.9%	9.9%	9.5%	9.2%	9.4%	9.6%	9.4%	*9.0%*	*9.0%*	Return on Shr. Equity	*9.5%*
9.3%	10.1%	9.6%	9.9%	9.9%	9.5%	9.2%	9.4%	9.6%	9.4%	*9.0%*	*9.0%*	Return on Com Equity [E]	*9.5%*
5.5%	6.5%	5.7%	5.6%	5.4%	4.8%	4.3%	4.4%	4.4%	4.2%	*4.0%*	*3.5%*	Retained to Com Eq	*4.0%*
41%	36%	41%	43%	46%	50%	53%	53%	54%	56%	*58%*	*60%*	All Div'ds to Net Prof	*61%*

CAPITAL STRUCTURE as of 9/30/20
Total Debt $2000.4 mill **Due in 5 Yrs** $124.8 mill
LT Debt $2000.4 mill **LT Interest** $83.4 mill
(LT interest earned: 3.8x)

Pension Assets-12/19 $763.1 mill
Oblig $1134.8 mill

Pfd Stock None

Common Stock 50,461,885 shs
as of 10/23/20

MARKET CAP: $4.6 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	+2.6	+1.1	-3.1
Avg Indust Use (MWH)	NA	NA	NA
Avg Indust Revs per KWH (¢)	5.83	5.64	5.32
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	3422	3392	3242
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+2.0	+2.3	+2.5
Fixed Charge Cov. (%)	329	309	307

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	2.5%	2.5%	*2.0%*
"Cash Flow"	5.5%	4.5%	*4.0%*
Earnings	7.0%	4.0%	*4.5%*
Dividends	7.0%	9.0%	*6.5%*
Book Value	5.5%	5.0%	*4.0%*

QUARTERLY REVENUES($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	302.6	333.0	408.3	305.6	1349.5
2018	310.1	340.0	408.8	311.9	1370.8
2019	350.3	316.9	386.3	292.9	1346.4
2020	291.0	318.8	425.3	*289.9*	*1325*
2021	*305*	*330*	*440*	*300*	*1375*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.66	.99	1.80	.76	4.21
2018	.72	1.23	2.02	.52	4.49
2019	.84	1.05	1.78	.93	4.61
2020	.74	1.19	2.02	*.70*	*4.65*
2021	*.85*	*1.15*	*2.00*	*.80*	*4.80*

QUARTERLY DIVIDENDS PAID [B] ■ †

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.55	.55	.55	.59	2.24
2018	.59	.59	.59	.63	2.40
2019	.63	.63	.63	.67	2.56
2020	.67	.67	.67	.71	2.72
2021					

BUSINESS: IDACORP, Inc. is a holding company for Idaho Power Company, a regulated electric utility that serves 583,000 customers throughout a 24,000-square-mile area in southern Idaho and eastern Oregon (population 1.2 million). Most of the company's revenues are derived from the Idaho portion of its service area. Revenue breakdown: residential, 39%, commercial, 22%, industrial, 13%, irrigation, 10%, other, 16%. Generating sources: hydro, 45%, coal, 16%; gas, 11%; purchased, 28%. Fuel costs 33% of revenues '19. Reported depreciation rate 2.9%. Has 2,000 employees. Chairman: Richard J. Dahl. President & CEO: Lisa Grow. Incorporated: Idaho. Address: 1221 W. Idaho St., Boise, Idaho 83702. Telephone: 208-388-2200. Internet: www.idacorpinc.com.

We estimate that IDACORP's earnings rose slightly in 2020. We figure this happened despite a difficult comparison in the fourth quarter. The company's utility subsidiary, Idaho Power, benefited from favorable weather conditions in its service area. Also, while the national recession hurt the economy in Idaho, this was less severe in the state because of the concentration of food-processing customers, which continued to operate even as some other businesses were ordered to close. Other businesses are expanding; for instance, Amazon opened a distribution center. Some companies have relocated from California to Idaho. Customer growth is rapid, and amounted to 2.6% for the 12-month period that ended on September 30th. Cost control has been effective, and operating and maintenance expenses likely declined. Upon reporting third-quarter results in late October, IDACORP narrowed its share-earnings guidance from $4.45-$4.65 to $4.55-$4.65. Our estimate remains at the upper end of this range.

We look for a modest profit increase this year. The service area's economy should continue to recover. On the other hand, a return to normal weather patterns would be a negative factor for the year-to-year comparison. Our estimate of $4.80 a share would produce a 3% increase over our expectation for 2020. Management will issue earnings guidance for 2021 when it reports fourth-quarter results next month.

Finances are solid. The fixed-charge coverage and common-equity ratio are comfortably above the averages for the electric utility industry. The earned return on equity is consistently healthy. IDACORP has not issued any common equity for several years, and expects no need for new equity in the next few years. The company's Financial Strength rating is A. We have raised the equity's Safety rank one notch, to 1 (Highest).

The dividend yield of this timely stock is a cut below the utility mean. The issue offers superior total return potential for the next 18 months. For the 3- to 5-year period, however, total return prospects are unexceptional, despite the likelihood of strong dividend growth. The recent quotation is near the lower end of our 2023-2025 Target Price Range.

Paul E. Debbas, CFA *January 22, 2021*

(A) Diluted EPS. Excl. nonrecurring gain (loss) '05, (24¢), '06, 17¢; '17 & '19 earnings don't sum due to rounding. Next earnings report due mid-Feb. (B) Dividends historically paid in late Feb., May, Aug., and Nov. ■ Dividend reinvestment plan available. † Shareholder investment plan available. (C) Incl. intangibles. In '19: $26.31/sh. (D) In millions. (E) Rate base: Net original cost. Rate allowed on common equity in '12: 10% (imputed), earned on avg. com. eq., '19: 9.6%. Regulatory Climate: Above Average.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	90
Earnings Predictability	100

NORTHWESTERN NDQ-NWE

RECENT PRICE 56.72 | P/E RATIO 16.8 (Trailing: 17.8 Median: 17.0) | RELATIVE P/E RATIO 0.77 | DIV'D YLD 4.4% | VALUE LINE

TIMELINESS 3 Raised 11/6/20
SAFETY 2 Raised 7/27/18
TECHNICAL 4 Lowered 1/15/21
BETA 95 (1 00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$41-$101	$71 (25%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	85	(+50%)	*14%*
Low	65	(+15%)	*8%*

Institutional Decisions

	1Q2020	2Q2020	3Q2020
to Buy	127	143	134
to Sell	144	137	126
Hld's(000)	48390	48127	47772

	High	Low.
2004	26 8	18 5
2005	30 6	23 8
2006	36 6	27 4
2007	38 0	33 0
2008	47 2	35 1
2009	58 7	42 6
2010	59 7	48 4
2011	63 8	52 2
2012	64 5	55.7
2013	65 7	50.0
2014	76 7	57 3
2015	80 5	45 1

LEGENDS
— 0 71 x Dividends p sh divided by Interest Rate
.. Relative Price Strength
Options Yes
Shaded area indicates recession

Target Price Range 2023 | 2024 | 2025

Percent shares traded 30 20 10

% TOT. RETURN 12/20

	THIS STOCK	VL ARITH * INDEX
1 yr	-15 1	18 8
3 yr	9 4	29 9
5 yr	29 0	81 5

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
29.18	32.57	31.49	30.79	35.09	31.72	30.66	30.80	28 76	29.80	25.68	25.21	26.01	26.45	23.81	24 93	*24.00*	*24.55*	Revenues per sh	*27.25*
3 20	4.00	3 62	3 70	4.40	4.62	4.76	5 42	5 18	5.45	5.39	5.92	6.74	6.76	6.96	7.07	*6.80*	*7.25*	"Cash Flow" per sh	*8.50*
d14 32	1 71	1 31	1.44	1 77	2 02	2 14	2 53	2 26	2 46	2.99	2 90	3 39	3 34	3 40	3 53	*3.15*	*3.50*	Earnings per sh [A]	*4.00*
--	1 00	1 24	1.28	1.32	1.34	1.36	1.44	1.48	1 52	1 60	1 92	2 00	2 10	2 20	2 30	2.40	*2.48*	Div'd Decl'd per sh [B] ■ †	*2.75*
2 25	2 26	2 81	3.00	3 47	5.26	6 30	5.20	5 89	5 95	5 76	5 89	5 96	5 60	5 64	6 26	*7.90*	*8.75*	Cap'l Spending per sh	*7.50*
19 92	20 60	20.65	21.12	21 25	21.86	22.64	23 68	25 09	26.60	31 50	33.22	34.68	36 44	38.60	40 42	*41.10*	*42.40*	Book Value per sh [C]	*45.75*
35.60	35.79	35.97	38.97	35.93	36.00	36.23	36.28	37.22	38.75	46.91	48.17	48.33	49.37	50.32	50.45	*50.60*	*51.50*	Common Shs Outst'g [D]	*53.00*
--	17 1	26.0	21 7	13 9	11 5	12 9	12 6	15 7	16 9	16 2	18 4	17.2	17.8	16 8	19 9	*18.9*		Avg Ann'l P/E Ratio	*18.5*
--	.91	1.40	1.15	.84	.77	.82	79	1.00	.95	.85	.93	.90	.90	91	1 06	*.95*		Relative P/E Ratio	*1.05*
--	3 4%	3.6%	4 1%	5 4%	5 7%	4 9%	4 5%	4 2%	3 7%	3.3%	3.6%	3.4%	3.5%	3 9%	3 3%	4.0%		Avg Ann'l Div'd Yield	*3.7%*
1110.7	1117.3	1070.3	1154 5	1204.9	1214 3	1257.2	1305.7	1198.1	1257 9	*1215*	*1265*	Revenues ($mill)	*1450*
77.4	92.6	83.7	94.0	120.7	138.4	164.2	162.7	171.1	179.3	*160*	*180*	Net Profit ($mill)	*220*
25 0%	9 8%	9 6%	13 2%	--	13 7%	--	7 6%	7.6%	1.6%	*NMF*	*Nil*	Income Tax Rate	*10.0%*
14 2%	3.3%	9 4%	8 7%	8 9%	9.8%	4 3%	5.2%	3 4%	4 6%	*6.0%*	*6.0%*	AFUDC % to Net Profit	*4.0%*
57.2%	52.2%	53.8%	53.5%	53.4%	53.1%	52.0%	50.2%	52.2%	52.5%	*49.0%*	*51.5%*	Long-Term Debt Ratio	*48.0%*
42 8%	47 8%	46 2%	46 5%	46 6%	46.9%	48 0%	49.8%	47.8%	47.5%	*51.0%*	*48.5%*	Common Equity Ratio	*52.0%*
1916.4	1797.1	2020.7	2215.7	3168.0	3408.6	3493 9	3614.5	4064.6	4289 8	*4090*	*4490*	Total Capital ($mill)	*4675*
2118 0	2213.3	2435 6	2690.1	3758.0	4059.5	4214.9	4358.3	4521.3	4700.9	*4915*	*5175*	Net Plant ($mill)	*5800*
5 9%	7.0%	5.5%	5.5%	4 8%	5.2%	5 9%	5 6%	5 2%	5 2%	*5.0%*	*5.0%*	Return on Total Cap'l	*5.5%*
9.4%	10.8%	9 0%	9.1%	8 2%	8 6%	9.8%	9 0%	8.8%	8 8%	*8.0%*	*8.5%*	Return on Shr. Equity	*9.0%*
9 4%	10 8%	9 0%	9 1%	8 2%	8.6%	9 8%	9.0%	8.8%	8 8%	*8.0%*	*8.5%*	Return on Com Equity [E]	*9.0%*
3.5%	4.7%	3 2%	3.5%	3.8%	3.0%	4.1%	3.4%	3.2%	3.1%	*2.0%*	*2.5%*	Retained to Com Eq	*3.0%*
63%	56%	65%	61%	54%	65%	58%	62%	64%	64%	*75%*	*70%*	All Div'ds to Net Prof	*66%*

CAPITAL STRUCTURE as of 9/30/20
Total Debt $2307 0 mill **Due in 5 Yrs** $548 1 mill
LT Debt $2204 4 mill. **LT Interest** $80 5 mill
Incl $15 5 mill capitalized leases
(LT interest earned 2 8x)

Pension Assets-12/19 $609 0 mill
Oblig $735 6 mill

Pfd Stock None

Common Stock 50,581,973 shs
as of 10/16/20

MARKET CAP: $2.9 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	+3.8	+2 9	+4 6
Avg Indust Use (MWH)	30987	34573	37808
Avg Indust Revs per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Winter (Mw)	2133	2173	2237
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr end)	+1 3	+1 2	+1 2
Fixed Charge Cov (%)	275	275	284

ANNUAL RATES of change (per sh)

	Past 10 Yrs	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	-2.5%	-2.0%	*1 5%*
"Cash Flow"	5.0%	5 5%	*3 5%*
Earnings	7 0%	6 0%	*2.5%*
Dividends	5 5%	7.5%	*4 0%*
Book Value	6 0%	7.0%	*3 0%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	367 3	283 9	309.9	344.6	1305.7
2018	341 5	261 8	279.9	314.9	1198.1
2019	384.2	270.7	274.8	328 2	1257 9
2020	335.3	269 4	280.6	*329.7*	*1215*
2021	*355*	*285*	*290*	*335*	*1265*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	1.17	.44	.75	98	3 34
2018	1 18	61	.56	1.06	3.40
2019	1.44	.49	.42	1 18	3 53
2020	1.00	.43	.58	*1.14*	*3.15*
2021	*1.15*	*.50*	*.65*	*1.20*	*3.50*

QUARTERLY DIVIDENDS PAID [B] ■ †

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.525	.525	525	525	2 10
2018	.55	.55	55	55	2 20
2019	575	575	.575	575	2.30
2020	.60	.60	60	60	2 40
2021					

BUSINESS: NorthWestern Corporation (doing business as NorthWestern Energy) supplies electricity & gas in the Upper Midwest and Northwest, serving 443,000 electric customers in Montana and South Dakota and 292,000 gas customers in Montana (85% of gross margin), South Dakota (14%), and Nebraska (1%) Electric revenue breakdown: residential, 39%; commercial, 47%, industrial, 4%, other, 10% Generating sources hydro, 34%, coal, 28%, wind, 5%, other, 3%; purchased, 30% Fuel costs 25% of revenues '19 reported deprec rate 2 8% Has 1,500 employees Chairman Stephen P. Adik. President & CEO: Robert C. Rowe Inc.: Delaware Address 3010 West 69th Street, Sioux Falls, South Dakota 57108 Tel 605-978-2900 Internet www.northwesternenergy.com

NorthWestern's earnings almost certainly declined in 2020. Mild weather and unusual costs hurt the first-quarter comparison. Over the remainder of the year, the utility was affected by the slump in commercial and industrial kilowatt-hour sales resulting from the weak economy (partly offset by higher residential volume) and some coronavirus-related costs. NorthWestern stated that it planned to book a pretax charge of $9.5 million against fourth-quarter results because the Montana commission disallowed some purchased-power costs. We are *including* this in our earnings presentation even though the company is excluding it from its targeted range of $3.30-$3.45 a share.

We expect earnings in 2021 to approach the 2019 tally. We figure NorthWestern will have a more-typical showing in the March quarter, lower coronavirus-related effects for the full-year, and no charge for the disallowance in the December period. Our profit estimate of $3.50 a share is at the midpoint of the company's preliminary guidance of $3.40-$3.60.

NorthWestern is adding generating capacity. The company is building a 60-megawatt gas-fired plant in South Dakota that is scheduled to be on line in late 2021 at a cost of $80 million. The utility plans to add another 30-40 mw of capacity in 2023 at an expected cost of $60 million. NorthWestern canceled plans to purchase a stake in a coal-fired plant because obtaining regulatory approval appeared unlikely. The utility has a request for proposals pending in Montana, and expects to announce the winning bidder(s) in the current quarter.

We think the board of directors will raise the dividend in the current quarter. We estimate the annual disbursement will be hiked by $0.08 a share (3.3%). This would be a slightly smaller increase than in recent years. Based on our estimates for earnings and dividends this year, the payout ratio would be at the upper end of NorthWestern's goal of 60%-70%.

The dividend yield of NorthWestern stock is somewhat above the utility average. Total return potential is attractive for the year ahead and respectable for the 3- to 5-year period.

Paul E. Debbas, CFA *January 22, 2021*

(A) Diluted EPS Excl gain (loss) on disc ops '05, (6¢), '06, 1¢, nonrec. gains: '12, 39¢ net, '15, 27¢, '18, 52¢, '19, 45¢. '18 EPS don't sum due to rounding Next earnings report due mid-Feb (B) Div'ds historically paid in late Mar., June, Sept & Dec ■ Div'd reinvestment plan avail. (C) Incl def'd charges In '19 $16 68/sh. (D) In mill. (E) Rate base Net orig cost Rate allowed on com eq in MT in '19 (elec) 9 65%, in '17 (gas) 9 55%, in SD in '15 none spec., in NE in '07. 10 4%, earned on avg. com. eq., '19 9 0% Reg Climate Below Avg

Company's Financial Strength	B++
Stock's Price Stability	90
Price Growth Persistence	70
Earnings Predictability	85

OGE ENERGY CORP. NYSE-OGE

RECENT PRICE 29.59 | P/E RATIO 13.8 (Trailing: 14.2 Median: 17.0) | RELATIVE P/E RATIO 0.64 | DIV'D YLD 5.5% | VALUE LINE

TIMELINESS 2 Raised 2/5/21
SAFETY 2 Lowered 12/18/15
TECHNICAL 3 Raised 3/12/21
BETA 1.05 (1.00 = Market)

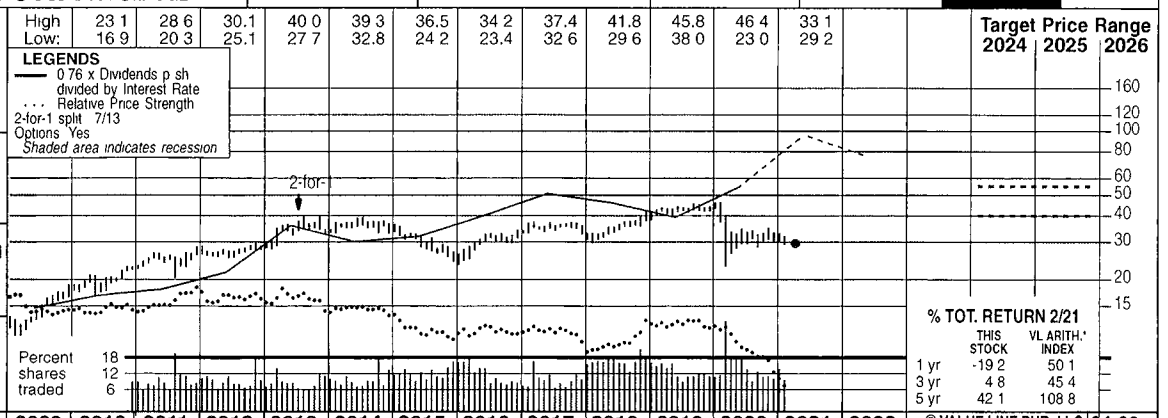
18-Month Target Price Range
Low-High Midpoint (% to Mid)
$24-$64 $44 (50%)

2024-26 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	55	(+85%)	20%
Low	40	(+35%)	12%

Institutional Decisions

	2Q2020	3Q2020	4Q2020
to Buy	203	181	188
to Sell	182	195	193
Hld's(000)	129209	126932	127332



2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26
32.83	21.96	20.68	21.77	14.79	19.04	19.96	18.58	14.45	12.30	11.00	11.31	11.32	11.37	11.15	10.61	12.25	13.25	Revenues per sh	16.25
1.94	2.23	2.39	2.40	2.69	3.01	3.31	3.69	3.46	3.40	3.23	3.31	3.34	3.74	4.02	4.03	4.25	4.70	"Cash Flow" per sh	5.50
.92	1.23	1.32	1.25	1.33	1.50	1.73	1.79	1.94	1.98	1.69	1.69	1.92	2.12	2.24	2.08	2.10	2.40	Earnings per sh [A]	2.75
.67	.67	.68	.70	.71	.73	.76	.80	.85	.95	1.05	1.16	1.27	1.40	1.51	1.58	1.64	1.69	Div'd Decl'd per sh [B] ■	1.95
1.65	2.67	3.04	4.01	4.37	4.36	6.48	5.85	4.99	2.86	2.74	3.31	4.13	2.87	3.18	3.25	3.75	3.95	Cap'l Spending per sh	4.25
7.59	8.79	9.16	10.14	10.52	11.73	13.06	14.00	15.30	16.27	16.66	17.24	19.28	20.06	20.69	18.15	18.60	19.25	Book Value per sh [C]	21.50
181.20	182.40	183.60	187.00	194.00	195.20	196.20	197.60	198.50	199.40	199.70	199.70	199.70	199.70	200.10	200.10	200.00	200.00	Common Shs Outst'g [D]	200.00
14.9	13.7	13.8	12.4	10.8	13.3	14.4	15.2	17.7	18.3	17.7	17.7	18.3	16.5	19.0	16.2	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	17.0
.79	.74	.73	.75	.72	.85	.90	.97	.99	.96	.89	.93	.92	.89	1.01	.83			Relative P/E Ratio	.95
4.9%	4.0%	3.8%	4.5%	5.0%	3.7%	3.1%	2.9%	2.5%	2.6%	3.5%	3.9%	3.6%	4.0%	3.5%	4.7%			Avg Ann'l Div'd Yield	4.0%
3915.9	3671.2	2867.7	2453.1	2196.9	2259.2	2261.1	2270.3	2231.6	2122.3	2450	2650	Revenues ($mill)	3250
342.9	355.0	387.6	395.8	337.6	338.2	384.3	425.5	449.6	415.9	425	485	Net Profit ($mill)	555
30.7%	26.0%	24.9%	30.4%	29.2%	30.5%	32.5%	14.5%	7.4%	13.2%	14.0%	14.0%	Income Tax Rate	14.0%
9.0%	2.7%	2.6%	1.7%	3.7%	6.4%	15.0%	8.3%	1.6%	1.6%	2.0%	1.0%	AFUDC % to Net Profit	1.0%
51.6%	50.7%	43.1%	45.9%	44.3%	41.1%	41.7%	42.0%	43.6%	49.0%	48.5%	48.5%	Long-Term Debt Ratio	49.0%
48.4%	49.3%	56.9%	54.1%	55.7%	58.9%	58.3%	58.0%	56.4%	51.0%	51.5%	51.5%	Common Equity Ratio	51.0%
5300.4	5615.8	5337.2	5999.7	5971.6	5849.6	6600.7	6902.0	7334.7	7126.2	7210	7490	Total Capital ($mill)	8375
7474.0	8344.8	6672.8	6979.9	7322.4	7696.2	8339.9	8643.8	9044.6	9374.6	9705	10040	Net Plant ($mill)	11000
7.8%	7.7%	8.6%	7.8%	6.9%	7.0%	7.0%	7.3%	7.1%	6.9%	7.0%	7.5%	Return on Total Cap'l	7.5%
13.4%	12.8%	12.8%	12.2%	10.2%	9.8%	10.0%	10.6%	10.9%	11.5%	11.5%	12.5%	Return on Shr. Equity	13.0%
13.4%	12.8%	12.8%	12.2%	10.2%	9.8%	10.0%	10.6%	10.9%	11.5%	11.5%	12.5%	Return on Com Equity [E]	13.0%
7.7%	7.2%	7.3%	6.5%	4.0%	3.3%	3.5%	3.8%	3.6%	2.8%	2.5%	4.0%	Retained to Com Eq	4.0%
43%	44%	43%	47%	61%	67%	64%	64%	67%	76%	77%	70%	All Div'ds to Net Prof	70%

CAPITAL STRUCTURE as of 12/31/20
Total Debt $3589.4 mill **Due in 5 Yrs** $95.0 mill
LT Debt $3494.4 mill **LT Interest** $152.5 mill
(LT interest earned 4.1x)

Leases, Uncapitalized Annual rentals $6.3 mill

Pension Assets-12/20 $570.3 mill.
Oblig $654.6 mill

Pfd Stock None

Common Stock 200,021,161 shs.
as of 1/29/21
MARKET CAP: $5.9 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2018	2019	2020
% Change Retail Sales (KWH)	+6.8	+1.1	-4.9
Avg Indust Use (MWH)	NA	NA	NA
Avg Indust Revs per KWH (¢)	4.86	4.69	4.40
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	6863	6817	6437
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr end)	+.9	+1.0	+1.1
Fixed Charge Cov. (%)	292	335	326

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '18-'20 to '24-'26
Revenues	-5.0%	-2.5%	4.5%
"Cash Flow"	4.0%	3.0%	6.0%
Earnings	4.5%	3.0%	4.0%
Dividends	7.5%	9.5%	4.5%
Book Value	6.0%	4.0%	1.5%

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	492.7	567.0	698.8	511.8	2270.3
2019	490.0	513.7	755.4	472.5	2231.6
2020	431.3	503.5	702.1	485.4	2122.3
2021	500	600	800	550	2450
2022	575	650	850	575	2650

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	.27	.55	1.02	.27	2.12
2019	.24	.50	1.25	.26	2.24
2020	.23	.51	1.04	.30	2.08
2021	.15	.50	1.20	.25	2.10
2022	.25	.55	1.30	.30	2.40

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.3025	.3025	.3025	.3325	1.24
2018	.3325	.3325	.3325	.365	1.36
2019	.365	.365	.365	.3875	1.48
2020	.3875	.3875	.3875	.4025	1.57
2021	.4025				

BUSINESS: OGE Energy Corp. is a holding company for Oklahoma Gas and Electric Company (OG&E), which supplies electricity to 867,000 customers in Oklahoma (84% of electric revenues) and western Arkansas (8%), wholesale is (8%). Owns 25.5% of Enable Midstream Partners. Electric revenue breakdown: residential, 41%, commercial, 23%, industrial, 9%, oilfield, 8%, other, 19%. Generating sources: gas, 38%, coal, 15%, wind, 5%, purchased, 42%. Fuel costs: 30% of revenues '20 reported depreciation rate (utility): 2.6%. Has 2,400 employees. Chairman, President and Chief Executive Officer: Sean Trauschke. Incorporated: Oklahoma. Address: 321 North Harvey, P.O. Box 321, Oklahoma City, Oklahoma 73101-0321. Telephone: 405-553-3000. Internet: www.oge.com.

OGE Energy's utility subsidiary was hurt by the cold spell that hit the region in February. A surge in gas and purchased-power costs resulting from the disruption of gas supplies cost an estimated $800 million-$1 billion. Oklahoma Gas and Electric will defer these for future recovery, but because this is such a large amount, the utility proposes to amortize the cost over a 10-year period beginning in January. The company obtained $1 billion in bank financing to cover the costs, and will seek recovery of financing costs, too.

This will affect earnings in 2021. OG&E has a guaranteed flat bill program that applies to 3% of its load, so the utility has to absorb higher power expenses for these customers. This will hurt the bottom line by an estimated $0.06 a share. Financing costs associated with the new debt facility will amount to $0.03-$0.04 a share. For now, we assume OG&E will be allowed to recover its power costs, but do not assume recovery of the financing costs. We think OGE Energy's profits will rise slightly in 2021 thanks to higher equity income from the company's stake in Enable Midstream Partners. The utility will get additional revenues from a formula rate plan in Arkansas and rider recovery of grid enhancement spending in Oklahoma.

Enable has agreed to be acquired by Energy Transfer Partners. Once the deal closes, the company will own 3% of Energy Transfer, and will get cash of $35 million. The poor performance of Enable units in 2020 led to a 28% decline in the price of OGE Energy stock last year. The company plans to sell its stake in Energy Transfer. For now, it expects to get $60 million-$73 million in cash distributions from midstream gas investments in 2021.

Earnings should improve in 2022. We assume no drag from the weather-related problems experienced in February. OG&E should get a partial year of rate relief from a case it must file in Oklahoma no later than the first quarter of 2022.

Income-oriented investors should consider this timely stock. The yield is well above the utility mean, which should compensate stockholders for the regulatory uncertainty regarding the surge in power costs. Total return potential is attractive for the 18-month and 2024-2026 periods.

Paul E. Debbas, CFA *March 12, 2021*

(A) Diluted EPS. Excl. nonrecurring gain (losses): '15, (33¢), '17, $1.18; '19, (8¢); '20, ($2.95), gains on discont. ops.: '05, 25¢, '06, 20¢. '18 & '19 EPS don't sum due to rounding. Next earnings report due early May. (B) Div'ds historically paid in late Jan., Apr., July, & Oct. ■ Div'd reinvestment plan avail. (C) Incl. deferred charges. In '20: $2.08/sh. (D) In mill., adj. for split. (E) Rate base: Net original cost. Rate allowed on com. eq. in OK in '19: 9.5%, in AR in '18: 9.5%, earned on avg. com. eq., '20: 9.9%. Regulatory Climate: Average

Company's Financial Strength	A
Stock's Price Stability	80
Price Growth Persistence	35
Earnings Predictability	90

OTTER TAIL CORP. NDQ-OTTR

RECENT PRICE 41.29 | P/E RATIO 17.2 (Trailing: 17.6 Median: 21.0) | RELATIVE P/E RATIO 0.80 | DIV'D YLD 3.8% | VALUE LINE

TIMELINESS 4 Lowered 2/26/21
SAFETY 2 Raised 6/17/16
TECHNICAL 4 Lowered 2/19/21
BETA .85 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$33-$75	$54 (30%)

2024-26 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	65	(+55%)	15%
Low	45	(+10%)	6%

Institutional Decisions

	2Q2020	3Q2020	4Q2020
to Buy	75	71	89
to Sell	82	74	63
Hld's(000)	18869	19002	19252

	High:	25.4	23.5	25.3	31.9	32.7	33.4	42.6	48.7	51.9	57.7	56.9	44.0	39.4
	Low	18.2	17.5	20.7	25.2	26.5	24.8	25.8	35.7	39.0	45.9	31.0	39.4	

LEGENDS
0.61 x Dividends p sh divided by Interest Rate
Relative Price Strength
Options: Yes
Shaded area indicates recession

Target Price Range 2024 | 2025 | 2026

Percent shares traded: 9, 6, 3

% TOT. RETURN 2/21

	THIS STOCK	VL ARITH* INDEX
1 yr	-13.5	50.1
3 yr	11.0	45.4
5 yr	72.9	108.8

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26
35.59	37.43	41.50	37.06	29.03	31.08	29.86	23.76	24.63	21.48	20.60	20.42	21.47	23.10	22.90	21.46	*22.60*	*23.75*	Revenues per sh	*27.75*
3.35	3.39	3.55	2.81	2.76	2.60	2.36	2.71	3.02	3.09	3.14	3.44	3.70	3.96	4.11	4.29	*4.55*	*4.80*	"Cash Flow" per sh	*5.75*
1.78	1.69	1.78	1.09	.71	.38	.45	1.05	1.37	1.55	1.56	1.60	1.86	2.06	2.17	2.34	*2.45*	*2.60*	Earnings per sh [A]	*3.25*
1.12	1.15	1.17	1.19	1.19	1.19	1.19	1.19	1.19	1.21	1.23	1.25	1.28	1.34	1.40	1.48	*1.56*	*1.64*	Div'd Decl'd per sh [B] ■	*1.95*
2.04	2.35	5.43	7.51	4.95	2.38	2.04	3.20	4.53	4.40	4.23	4.10	3.36	2.66	5.16	8.96	*3.20*	*5.55*	Cap'l Spending per sh	*2.75*
15.80	16.67	17.55	19.14	18.78	17.57	15.83	14.43	14.75	15.39	15.98	17.03	17.62	18.38	19.46	21.00	*21.85*	*22.80*	Book Value per sh [C]	*26.00*
29.40	29.52	29.85	35.38	35.81	36.00	36.10	36.17	36.27	37.22	37.86	39.35	39.56	39.66	40.16	41.47	*41.60*	*41.70*	Common Shs Outst'g [D]	*42.00*
15.4	17.3	19.0	30.1	31.2	55.1	47.5	21.7	21.1	18.8	18.2	20.2	22.1	22.2	23.5	18.3	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*17.0*
.82	.93	1.01	1.81	2.08	3.51	2.98	1.38	1.19	.99	.92	1.06	1.11	1.20	1.25	.94			Relative P/E Ratio	*.95*
4.1%	3.9%	3.5%	3.6%	5.4%	5.7%	5.6%	5.2%	4.1%	4.1%	4.3%	3.9%	3.1%	2.9%	2.7%	3.5%			Avg Ann'l Div'd Yield	*3.5%*
1077.9	859.2	893.3	799.3	779.8	803.5	849.4	916.4	919.5	890.1	*940*	*990*	Revenues ($mill)	*1165*
16.4	39.0	50.2	56.9	58.6	62.0	73.9	82.3	86.8	95.9	*100*	*110*	Net Profit ($mill)	*135*
14.5%	5.2%	21.3%	22.5%	27.0%	24.5%	25.5%	15.0%	16.7%	17.4%	*17.5%*	*17.5%*	Income Tax Rate	*17.5%*
3.8%	1.7%	5.6%	3.9%	3.5%	2.2%	2.3%	4.1%	4.9%	6.4%	*4.0%*	*5.0%*	AFUDC % to Net Profit	*2.0%*
44.6%	44.0%	42.1%	46.5%	42.4%	43.0%	41.3%	44.7%	46.9%	41.8%	*44.5%*	*46.5%*	Long-Term Debt Ratio	*40.5%*
54.0%	54.4%	57.9%	53.5%	57.6%	57.0%	58.7%	55.3%	53.1%	58.2%	*55.5%*	*53.5%*	Common Equity Ratio	*59.5%*
1058.9	959.2	924.4	1071.3	1051.0	1175.4	1187.3	1318.9	1471.1	1495.4	*1645*	*1775*	Total Capital ($mill)	*1825*
1077.5	1049.5	1167.0	1268.5	1387.8	1477.2	1539.6	1581.1	1753.8	2049.3	*2095*	*2235*	Net Plant ($mill)	*2325*
3.2%	5.7%	6.8%	6.7%	6.8%	6.5%	7.3%	7.3%	7.0%	7.4%	*7.0%*	*7.0%*	Return on Total Cap'l	*8.5%*
2.8%	7.3%	9.4%	9.9%	9.7%	9.3%	10.6%	11.3%	11.1%	11.0%	*11.5%*	*11.5%*	Return on Shr. Equity [E]	*12.5%*
2.7%	7.3%	9.3%	9.9%	9.7%	9.3%	10.6%	11.3%	11.1%	11.0%	*11.5%*	*11.5%*	Return on Com Equity	*12.5%*
NMF	NMF	1.2%	2.2%	2.0%	2.1%	3.3%	4.0%	4.0%	4.1%	*4.0%*	*4.5%*	Retained to Com Eq	*5.0%*
NMF	113%	87%	78%	79%	78%	69%	65%	64%	63%	*63%*	*62%*	All Div'ds to Net Prof	*61%*

CAPITAL STRUCTURE as of 12/31/20
Total Debt $845.5 mill. **Due in 5 Yrs** $251.1 mill
LT Debt $624.4 mill **LT Interest** $35.1 mill
(LT interest earned 4.6x)

Leases, Uncapitalized Annual rentals $5.4 mill
Pension Assets-12/20 $360.7 mill
Oblig $428.4 mill

Pfd Stock None

Common Stock 41,510,455 shs.
as of 2/16/21

MARKET CAP: $1.7 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2018	2019	2020
% Change Retail Sales (KWH)	+3.4	-.2	-3.9
Avg Indust Use (MWH)	NA	NA	NA
Avg Indust Revs per KWH (¢)	5.97	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Winter (Mw)	912	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.2	+.1	NA
Fixed Charge Cov. (%)	409	407	405

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '18-'20 to '24-'26
Revenues	-3.5%	-.-	*3.5%*
"Cash Flow"	4.0%	6.0%	*5.5%*
Earnings	11.5%	8.0%	*7.0%*
Dividends	1.5%	3.0%	*5.5%*
Book Value	.5%	5.0%	*5.0%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	241.2	226.3	227.7	221.2	916.4
2019	246.0	229.2	228.6	215.7	919.5
2020	234.7	192.8	235.8	226.8	890.1
2021	*245*	*230*	*240*	*225*	*940*
2022	*260*	*240*	*250*	*240*	*990*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	.66	.47	.58	.35	2.06
2019	.66	.39	.62	.51	2.17
2020	.60	.42	.87	.45	2.34
2021	*.68*	*.47*	*.80*	*.50*	*2.45*
2022	*.72*	*.50*	*.85*	*.53*	*2.60*

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.32	.32	.32	.32	1.28
2018	.335	.335	.335	.335	1.34
2019	.35	.35	.35	.35	1.40
2020	.37	.37	.37	.37	1.48
2021	.39				

BUSINESS: Otter Tail Corporation is the parent of Otter Tail Power Company, which supplies electricity to 133,000 customers in Minnesota (53% of retail electric revenues), North Dakota (38%), and South Dakota (9%). Electric rev breakdown: residential, 32%, commercial & farms, 36%, industrial, 30%, other, 2%. Generating sources: coal, 38%, wind & other, 18%; purchased, 44%. Fuel costs: 12% of revenues. Also has operations in manufacturing and plastics (30% of '20 operating income). '20 deprec. rate 2.7%. Has 2,100 employees. Chairman: Nathan I. Partain. President & CEO: Charles S. MacFarlane, Inc. Minnesota Address: 215 South Cascade St., P.O. Box 496, Fergus Falls, Minnesota 56538-0496. Tel.: 866-410-8780. Internet: www.ottertail.com.

Otter Tail Corporation's earnings are likely to advance this year, following a surprisingly good showing in 2020. Last year, when the company reported first-quarter results, management cut its earnings guidance due to the expected effects of the weak economy on commercial and industrial volume at Otter Tail Power and income at the nonutility operations (which typically generate 25% of corporate profits). This hurt the stock price, which never recovered, falling 17% for the year. However, business conditions improved as the year went on, and the Plastics segment turned in a better-than-expected showing. The full-year tally wound up near the upper end of management's original targeted range of $2.22-$2.37 a share. This year, the utility has received interim rate relief in Minnesota (see below). The Manufacturing division should benefit from more-favorable business conditions. Our 2021 estimate of $2.45 a share is within Otter Tail's targeted range of $2.39-$2.54. We think further improvement in the economy will produce additional profit growth in 2022. We look for a 6% earnings increase, to $2.60 a share.

A rate case is pending in Minnesota. Otter Tail filed for an increase of $14.5 million (6.8%), based on a 10.2% return on equity and a 52.5% common-equity ratio. An interim increase of $6.9 million (3.2%) took effect in January. A final order is expected by November.

A large capital project began commercial operation in December, and another is expected to be completed in the current quarter. A 150-megawatt wind farm became operating at a cost of $260 million. This was the utility's largest project ever. A 245-mw gas-fired plant is on schedule for completion this quarter at an expected cost of $152.5 million.

The board of directors raised the dividend in the first quarter. The increase was two cents a share (5.4%) quarterly, the same as last year. Otter Tail's goals for the disbursement are annual increases of 5%-7% (in line with its target for profit growth) and a payout ratio of 60%-70%.

This untimely stock's dividend yield is average, for a utility. Total return potential is attractive for the next 18 months and average for the 3- to 5-year period.

Paul E. Debbas, CFA *March 12, 2021*

(A) Dil. EPS. Excl. nonrec. gains (loss) '10, (44¢), '11, 26¢, '13, 2¢, gains (losses) from disc. ops. '05, 33¢, '06, 1¢, '11, ($1.11), '12, ($1.22), '13, 2¢, '14, 2¢, '15, 2¢, '16, 1¢, '17, 1¢. '19 EPS don't sum due to rounding. Next earnings report due early May. (B) Div'ds historically pd. in early Mar., Jun., Sept., & Dec. ■ Div'd reinv. plan avail. (C) Incl. intang. In '20 $5.21/sh. (D) In mill. (E) Rate all'd on com. eq. in MN in '17: 9.41%, in ND in '18: 9.77%; in SD in '19: 8.75%, earn. avg. com. eq., '20: 11.6%. Reg. Clim.: MN, ND, Avg., SD, Above Avg.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	70
Earnings Predictability	90

PINNACLE WEST NYSE-PNW

RECENT PRICE 76.69 | P/E RATIO 16.1 (Trailing: 13.6) (Median: 16.0) | RELATIVE P/E RATIO 0.74 | DIV'D YLD 4.5% | VALUE LINE

TIMELINESS 2 Lowered 11/27/20
SAFETY 1 Raised 5/3/13
TECHNICAL 3 Lowered 1/8/21
BETA 90 (1 00 = Market)

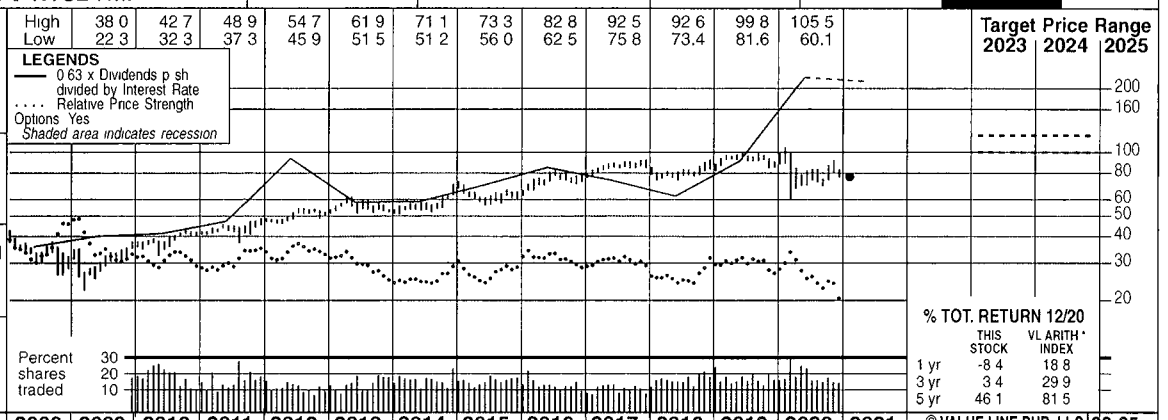
18-Month Target Price Range
Low-High Midpoint (% to Mid)
$57-$134 $96 (25%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	120	(+55%)	15%
Low	100	(+30%)	11%

Institutional Decisions

	1Q2020	2Q2020	3Q2020
to Buy	207	229	237
to Sell	277	245	229
Hld's(000)	95773	95025	93145



% TOT. RETURN 12/20

	THIS STOCK	VL ARITH * INDEX
1 yr	-8 4	18 8
3 yr	3 4	29 9
5 yr	46 1	81 5

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
31 59	30 16	34 03	35 07	33 37	32 50	30 01	29 67	30 09	31 35	31 58	31 50	31 42	31.90	32 93	30 87	*31.75*	*32.30*	Revenues per sh	*34.75*
6 93	5.76	9.70	9 29	8 13	8 08	6 85	7 52	7 92	8 15	8.09	9 09	9 39	9.79	11.41	11 13	*11.65*	*11.90*	"Cash Flow" per sh	*13.25*
2.58	2 24	3.17	2 96	2 12	2 26	3 08	2.99	3 50	3 66	3 58	3 92	3 95	4 43	4 54	4 77	*5.10*	*5.15*	Earnings per sh [A]	*6.00*
1.83	1.93	2.03	2.10	2.10	2.10	2.10	2.10	2.67	2.23	2 33	2 44	2.56	2 70	2.87	3.04	3.23	*3.42*	Div'd Decl'd per sh [B] ■	*4.05*
5.86	6.39	7.59	9.37	9.46	7.64	7 03	8.26	8 24	9.36	8 38	9 84	11 64	12 80	10 73	10.76	*11.65*	*15.20*	Cap'l Spending per sh	*11.75*
32 14	34.57	34.48	35.15	34 16	32.69	33.86	34.98	36 20	38.07	39.50	41.30	43.15	44.80	46.59	48.30	*50.10*	*51.70*	Book Value per sh [C]	*58.00*
91.79	99.08	99 96	100.49	100.89	101.43	108 77	109.25	109 74	110.18	110 57	110.98	111 34	111 75	112 10	112.44	*112.65*	*113.00*	Common Shs Outst'g [D]	*118.00*
15 8	19 2	13.7	14 9	16.1	13 7	12.6	14.6	14.3	15.3	15.9	16.0	18.7	19.3	17.8	19.4	*16.0*		Avg Ann'l P/E Ratio	*18.0*
.83	1.02	.74	.79	.97	.91	.80	.92	.91	.86	84	81	98	97	96	1.03	*.80*		Relative P/E Ratio	*1.00*
4.5%	4.5%	4.7%	4.8%	6.2%	6.8%	5.4%	4 8%	5.3%	4.0%	4 1%	3.9%	3.5%	3.2%	3.5%	3.3%	4.0%		Avg Ann'l Div'd Yield	*3.7%*
3263 6	3241 4	3301 8	3454 6	3491 6	3495 4	3498 7	3565 3	3691 2	3471 2	*3575*	*3650*	Revenues ($mill)	*4100*
330.4	328.2	387.4	406.1	397 6	437.3	442.0	497 8	511.0	538.3	*575*	*585*	Net Profit ($mill)	*710*
31 9%	34 0%	36 2%	34 4%	34 2%	34.3%	33.9%	32 5%	20 2%	20.2%	*13.0%*	*13.0%*	Income Tax Rate	*13.0%*
11 7%	12.8%	9.7%	10 0%	11 6%	11.8%	14.1%	13 9%	15.2%	9.3%	*9.0%*	*12.0%*	AFUDC % to Net Profit	*7.0%*
45.3%	44.1%	44 6%	40.0%	41.0%	43.0%	45.6%	48.9%	47.0%	47.1%	*53.0%*	*55.5%*	Long-Term Debt Ratio	*57.0%*
54 7%	55 9%	55 4%	60 0%	59.0%	57 0%	54 4%	51 1%	53 0%	52 9%	*47.0%*	*44.5%*	Common Equity Ratio	*43.0%*
6729.1	6840 9	7171.9	6990 9	7398 7	8046 3	8825 4	9796 4	9861 1	10263	*11975*	*13175*	Total Capital ($mill)	*16025*
9578.8	9962.3	10396	10889	11194	11809	12714	13445	14030	14523	*15100*	*16050*	Net Plant ($mill)	*18100*
6.5%	6.4%	6.8%	7.1%	6.4%	6 4%	6.0%	6 1%	6.2%	6.3%	*5.5%*	*5.5%*	Return on Total Cap'l	*5.5%*
9.0%	8.6%	9.8%	9.7%	9 1%	9 5%	9.2%	9 9%	9.8%	9 9%	*10.0%*	*10.0%*	Return on Shr. Equity	*10.5%*
9.0%	8.6%	9 8%	9.7%	9.1%	9.5%	9.2%	9.9%	9.8%	9.9%	*10.0%*	*10.0%*	Return on Com Equity [E]	*10.5%*
3 1%	2 8%	4 1%	4 1%	3 5%	3 9%	3 5%	4 2%	3 9%	3 8%	*4.0%*	*3.5%*	Retained to Com Eq	*3.5%*
66%	68%	58%	58%	62%	59%	62%	58%	60%	61%	*63%*	*66%*	All Div'ds to Net Prof	*67%*

CAPITAL STRUCTURE as of 9/30/20
Total Debt $6374 3 mill. **Due in 5 Yrs** $1573 0 mill
LT Debt $6316 4 mill **LT Interest** $226 5 mill
Incl $13 4 mill Palo Verde sale leaseback lessor notes
(LT interest earned: 3.4x)
Leases, Uncapitalized Annual rentals $14 7 mill
Pension Assets-12/19 $3318 4 mill
Oblig $3613 1 mill.
Pfd Stock None

Common Stock 112,596,784 shs
as of 10/23/20
MARKET CAP: $8.6 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	- -	- 3	- 3
Avg Indust Use (MWH)	620	662	714
Avg Indust Revs per KWH (¢)	8 34	8 40	7 88
Capacity at Peak (Mw)	8438	8643	8241
Peak Load, Summer (Mw)	7363	7320	7115
Annual Load Factor (%)	46.3	47.0	47.1
% Change Customers (yr end)	+1 8	+2 0	+2 0
Fixed Charge Cov (%)	425	318	286

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	- 5%	5%	*1 5%*
"Cash Flow"	2 5%	6 0%	*3 5%*
Earnings	6.5%	5 0%	*4 5%*
Dividends	3 0%	3 5%	*6 0%*
Book Value	3.0%	4.0%	*3 5%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	677.7	944.6	1183.3	759.7	3565.3
2018	692 7	974.1	1268 0	756.4	3691.2
2019	740.5	869.5	1190.8	670.4	3471.2
2020	661.9	929.6	1254.5	*729*	*3575*
2021	*750*	*900*	*1250*	*750*	*3650*

Calendar	EARNINGS PER SHARE [A] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.21	1.49	2.46	.27	4.43
2018	03	1.48	2.80	.23	4.54
2019	.16	1.28	2 77	57	4 77
2020	.27	1.71	3.07	*.05*	*5.10*
2021	*.15*	*1.50*	*3.15*	*.35*	*5.15*

Calendar	QUARTERLY DIVIDENDS PAID [B] ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.655	.655	655	695	2 66
2018	.695	.695	695	7375	2 82
2019	.7375	.7375	.7375	.7825	3.00
2020	.7825	.7825	7825	83	3 18
2021					

BUSINESS: Pinnacle West Capital Corporation is a holding company for Arizona Public Service Company (APS), which supplies electricity to 1 3 million customers in most of Arizona, except about half of the Phoenix metro area, the Tucson metro area, and Mohave County in northwestern Arizona Discontinued SunCor real estate subsidiary in '10 Electric revenue breakdown residential, 51%, commercial, 38%, industrial, 5%, other, 6% Generating sources nuclear, 28%, gas & other, 28%, coal, 24%, purchased, 20%. Fuel costs 30% of revenues '19 reported deprec rate 2 8% Has 6,200 employees Chairman, President & CEO Jeffrey B. Guldner. Inc AZ Address 400 North Fifth St, P O Box 53999, Phoenix, AZ 85072-3999 Tel · 602-250-1000 Internet www pinnaclewest com

Pinnacle West's utility subsidiary has revised its general rate case. Arizona Public Service originally filed for an increase of $184 million (5.6%), based on a return on equity of 10.15% and a common-equity ratio of 54.7%. The utility reduced its requested hike to $169 million (5.1%), based on an ROE of 10% and the same common-equity ratio. APS is trying to place capital investments in the rate base and obtain regulatory mechanism to track and recover certain expenses, such as property taxes. The staff of the Arizona Corporation Commission recommended an increase of $59.8 million (1.8%), based on a 9.4% ROE and the same common-equity ratio. There is no statutory time frame for an order, and the case has been delayed several months. Perhaps an increase will go into effect as early as mid-2021. There is always some risk surrounding rate cases, but the fact that two of the five commissioners are new to their positions adds uncertainty to the current proceedings.

We raised our 2020 earnings estimate by $0.15 a share, to $5.10. The company's third-quarter tally was boosted significantly by a record-hot summer in APS' service area. In fact, upon reporting third-quarter profits, Pinnacle West raised its targeted range by $0.20 a share, to $4.95-$5.15. The fourth-quarter comparison will almost certainly be materially negative due to some discretionary spending and the acceleration of some operating expenses from 2021 to 2020.

We look for slightly higher profits this year. This is based on the assumption that a rate increase will be in effect by the start of the seasonally strong third quarter. However, APS benefited from favorable weather conditions in the second and third quarters of 2020, and we base our 2021 estimate on normal weather.

The board of directors raised the annual dividend $0.19 a share (6.1%) in the fourth quarter. This has been the growth rate of the disbursement in recent years. We think dividend hikes will continue at that level through 2023-2025.

This timely stock is attractive for conservative income-oriented investors. The yield is above the utility average, and total return potential for the 18-month span and 3- to 5-year period are solid.

Paul E. Debbas, CFA *January 22, 2021*

(A) Diluted EPS. Excl nonrec gain (loss) '09, ($1 45); '17, 8¢; gains (losses) from discont ops.. '05, (36¢), '06, 10¢, '08, 28¢, '09, (13¢), '10, 18¢, '11, 10¢, '12, (5¢) '19 EPS don't sum due to rounding Next earnings report due late Feb (B) Div'ds historically paid in early Mar, June, Sept, & Dec There were 5 declarations in '12 ■ Div'd reinvestment plan avail (C) Incl deferred charges In '19 $14 00/sh (D) In mill (E) Rate base Fair value Rate allowed on com eq in '17 10 0%, earned on avg com eq, '19 10 1% Regulatory Climate Average

Company's Financial Strength	A+
Stock's Price Stability	90
Price Growth Persistence	65
Earnings Predictability	100

PORTLAND GENERAL NYSE-POR

RECENT PRICE 41.90 | P/E RATIO 27.7 (Trailing: 14.3 Median: 17.0) | RELATIVE P/E RATIO 1.28 | DIV'D YLD 4.0% | VALUE LINE

TIMELINESS 4 Lowered 1/22/21
SAFETY 3 Lowered 9/4/20
TECHNICAL 4 Lowered 1/8/21
BETA .85 (1.00 = Market)

18-Month Target Price Range

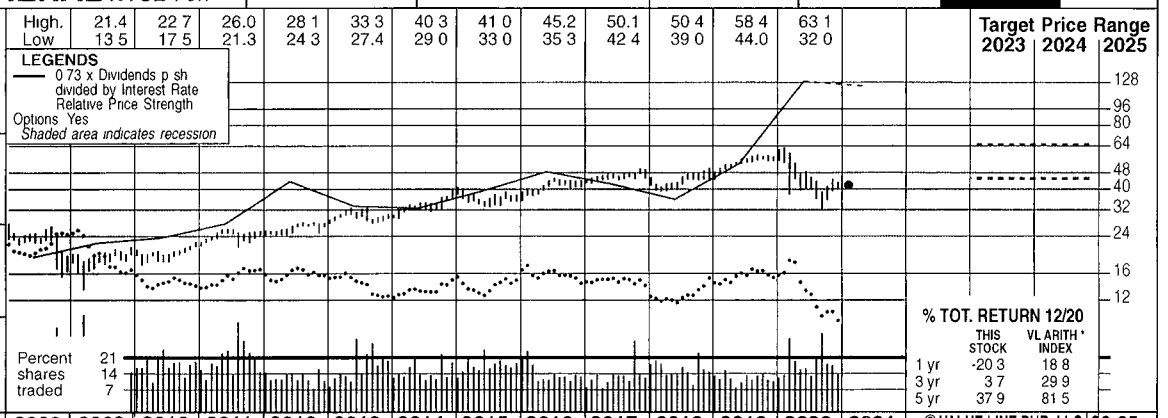
Low-High	Midpoint (% to Mid)
$34-$80	$57 (35%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	65	(+55%)	15%
Low	45	(+5%)	6%

Institutional Decisions

	1Q2020	2Q2020	3Q2020
to Buy	132	157	147
to Sell	197	158	180
Hld's(000)	86455	90761	81534



2004	2005F	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
--	23.14	24.32	27.87	27.89	23.99	23.67	24.06	23.89	23.18	24.29	21.38	21.62	22.54	22.30	23.75	*24.00*	*24.55*	Revenues per sh	*27.25*
--	4.75	4.64	5.21	4.71	4.07	4.82	4.96	5.15	4.93	6.08	5.37	5.78	6.16	6.65	6.97	*6.25*	*7.50*	"Cash Flow" per sh	*8.75*
--	1.02	1.14	2.33	1.39	1.31	1.66	1.95	1.87	1.77	2.18	2.04	2.16	2.29	2.37	2.39	*1.55*	*2.65*	Earnings per sh A	*3.00*
--	--	.68	.93	.97	1.01	1.04	1.06	1.08	1.10	1.12	1.18	1.26	1.34	1.43	1.52	1.59	*1.68*	Div'd Decl'd per sh B ■ †	*2.00*
--	4.08	5.94	7.28	6.12	9.25	5.97	3.98	4.01	8.40	12.87	6.73	6.57	5.77	6.67	6.78	*8.60*	*7.45*	Cap'l Spending per sh	*6.00*
--	19.15	19.58	21.05	21.64	20.50	21.14	22.07	22.87	23.30	24.43	25.43	26.35	27.11	28.07	28.99	*28.95*	*29.90*	Book Value per sh C	*33.00*
--	62.50	62.50	62.53	62.58	75.21	75.32	75.36	75.56	78.09	78.23	88.79	88.95	89.11	89.27	89.39	*89.55*	*89.65*	Common Shs Outst'g D	*90.00*
--	--	23.4	11.9	16.3	14.4	12.0	12.4	14.0	16.9	15.3	17.7	19.1	20.0	18.4	22.3	*29.4*		Avg Ann'l P/E Ratio	*18.0*
--	--	1.26	.63	.98	.96	76	.78	89	95	.81	.89	1.00	1.01	99	1.19	*1.50*		Relative P/E Ratio	*1.00*
--	--	2.5%	3.3%	4.3%	5.4%	5.2%	4.4%	4.1%	3.7%	3.3%	3.3%	3.1%	2.9%	3.3%	2.8%	3.5%		Avg Ann'l Div'd Yield	*3.7%*
						1783.0	1813.0	1805.0	1810.0	1900.0	1898.0	1923.0	2009.0	1991.0	2123.0	*2150*	*2200*	Revenues ($mill)	*2450*
						125.0	147.0	141.0	137.0	175.0	172.0	193.0	204.0	212.0	214.0	*140*	*240*	Net Profit ($mill)	*275*
						30.5%	28.3%	31.4%	23.2%	26.0%	20.7%	20.6%	25.3%	7.4%	11.2%	*Nil*	*11.0%*	Income Tax Rate	*11.0%*
						17.6%	5.4%	7.1%	14.6%	33.7%	19.8%	16.6%	8.8%	8.0%	7.0%	*14.0%*	*6.0%*	AFUDC % to Net Profit	*6.0%*
						53.0%	49.6%	47.1%	51.3%	52.7%	47.8%	48.4%	50.1%	46.5%	51.3%	*53.5%*	*55.0%*	Long-Term Debt Ratio	*54.0%*
						47.0%	50.4%	52.9%	48.7%	47.3%	52.2%	51.6%	49.9%	53.5%	48.7%	*46.5%*	*45.0%*	Common Equity Ratio	*46.0%*
						3390.0	3298.0	3264.0	3735.0	4037.0	4329.0	4544.0	4842.0	4684.0	5323.0	*5575*	*5965*	Total Capital ($mill)	*6475*
						4133.0	4285.0	4392.0	4880.0	5679.0	6012.0	6434.0	6741.0	6887.0	7161.0	*7510*	*7745*	Net Plant ($mill)	*7875*
						5.4%	6.2%	5.9%	5.1%	5.8%	5.4%	5.6%	5.5%	5.8%	5.1%	*3.5%*	*5.0%*	Return on Total Cap'l	*5.5%*
						7.9%	8.8%	8.2%	7.5%	9.2%	7.6%	8.2%	8.4%	8.5%	8.3%	*5.5%*	*9.0%*	Return on Shr. Equity	*9.5%*
						7.9%	8.8%	8.2%	7.5%	9.2%	7.6%	8.2%	8.4%	8.5%	8.3%	*5.5%*	*9.0%*	Return on Com Equity E	*9.5%*
						3.0%	4.1%	3.5%	2.9%	4.6%	3.3%	3.5%	3.6%	3.5%	3.1%	*NMF*	*3.0%*	Retained to Com Eq	*3.0%*
						62%	54%	57%	61%	50%	56%	57%	58%	59%	63%	*NMF*	*63%*	All Div'ds to Net Prof	*65%*

CAPITAL STRUCTURE as of 9/30/20
Total Debt $3058 mill **Due in 5 Yrs** $541 mill
LT Debt $2657 mill **LT Interest** $129 mill
Incl $135 mill capitalized leases.
(LT interest earned 2.2x)
Leases, Uncapitalized Annual rentals $8 mill
Pension Assets-12/19 $695 mill
Oblig $905 mill.
Pfd Stock None

Common Stock 89,510,606 shs
as of 10/26/20

MARKET CAP: $3.8 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	+3.9	-2.5	+1.2
Avg Indust Use (MWH)	16041	16207	17827
Avg Indust Revs per KWH (¢)	4.94	4.79	4.75
Capacity at Peak (Mw)	4743	4859	NA
Peak Load, Summer (Mw)	3976	3816	3765
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.3	+1.1	+1.1
Fixed Charge Cov. (%)	298	266	265

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	-1.5%	-1.0%	*3.0%*
"Cash Flow"	3.5%	4.0%	*5.0%*
Earnings	3.5%	4.0%	*4.0%*
Dividends	4.0%	5.5%	*6.0%*
Book Value	3.0%	3.5%	*2.5%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	530	449	515	515	2009
2018	493	449	525	524	1991
2019	573	460	542	548	2123
2020	573	469	547	*561*	*2150*
2021	*580*	*475*	*570*	*575*	*2200*

Calendar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.82	.36	.44	.67	2.29
2018	.72	.51	.59	.55	2.37
2019	.82	.28	.61	.68	2.39
2020	.91	.43	d.19	*.40*	*1.55*
2021	*.85*	*.45*	*.60*	*.75*	*2.65*

Calendar	QUARTERLY DIVIDENDS PAID B ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.32	.32	.34	.34	1.32
2018	.34	.34	.3625	.3625	1.41
2019	.3625	.3625	.385	.385	1.50
2020	.385	.385	.385	.4075	1.56
2021	4075				

BUSINESS: Portland General Electric Company (PGE) provides electricity to 901,000 customers in 52 cities in a 4,000-square-mile area of Oregon, including Portland and Salem. The company is in the process of decommissioning the Trojan nuclear plant, which it closed in 1993. Electric revenue breakdown: residential, 47%, commercial, 30%, industrial, 9%, other, 14%. Generating sources: gas, 36%, coal, 19%, wind, 8%, hydro, 6%, purchased, 31%. Fuel costs 29% of revenues '19. Reported depreciation rate: 3.6%. Has 2,900 employees. Chairman: Jack E. Davis. President and Chief Executive Officer: Maria M. Pope. Incorporated: Oregon. Address: 121 S.W. Salmon Street, Portland, Oregon 97204. Telephone: 503-464-8000. Internet: www.portlandgeneral.com.

Portland General Electric's earnings almost certainly declined sharply in 2020. The reason was a large energy-trading loss in August. This hurt third-quarter and full-year profits by $1.09 a share, and sent the September-period tally into the red. The company established a committee of board members to review its operations, and made some changes in personnel and its organizational structure as a result. The costs of these changes were not material, and PGE cut some expenses to offset part of the cost of the trading loss. Management is guiding Wall Street to the upper half of its earnings target of $1.40-$1.60 a share.

We expect an earnings recovery this year. The energy-trading loss was limited to the incident in the third quarter of 2020, so we assume no recurrence of any such problems. We also expect the utility to benefit from a better economy in its service area. Renewable-energy investments are being recovered through a renewable adjustment clause. PGE's long-term goal for annual earnings growth is 4%-6%, using the 2019 tally as the base. We expect a dividend increase, too, as the company expects the trading loss will not affect this.

A noteworthy capital project was completed in 2020, and another is on track for completion in 2021. PGE has a one-third stake in a 300-megawatt wind-farm in a joint venture with NextEra Energy. (In conjunction with the project, the latter company will own 50 mw of solar capacity and 30 mw of battery of storage that are scheduled for completion by year-end.) The cost of PGE's share of the wind-farm was $160 million. The company is building an integrated operations center at an expected cost of $200 million. This is scheduled for completion by yearend.

Despite the trading loss, finances are sound. Interest coverage is adequate, and the common-equity ratio is healthy. PGE does not need to issue equity to finance its capital expenditures. PGE's Financial Strength rating is B++.

This untimely stock's dividend yield is slightly above the utility average. The equity is noteworthy for its 18-month prospects, however, and offers respectable 3- to 5-year total return potential.

Paul E. Debbas, CFA *January 22, 2021*

Company's Financial Strength	B++
Stock's Price Stability	90
Price Growth Persistence	75
Earnings Predictability	90

(A) Diluted EPS. Excl. nonrecurring losses '13, 42¢, '17, 19¢. Next earnings report due mid-Feb. (B) Div'ds paid mid-Jan., Apr., July, and Oct. ■ Div'd reinvestment plan avail. † Shareholder investment plan avail. (C) Incl. deferred charges. In '19: $483 mill., $5.40/sh. (D) In mill. (E) Rate base: Net orig. cost. Rate allowed on com. eq. in '19: 9.5%; earned on avg. com. eq., '19: 8.4%. Regulatory Climate: Average. (F) '05 per-share data are pro forma, based on shs. outstanding when stock began trading in '06.

XCEL ENERGY NDQ-XEL

RECENT PRICE 64.40 | P/E RATIO 22.2 (Trailing: 23.0 Median: 16.0) | RELATIVE P/E RATIO 1.02 | DIV'D YLD 2.8% | VALUE LINE

TIMELINESS 1 Raised 12/4/20
SAFETY 1 Raised 5/1/15
TECHNICAL 2 Lowered 1/15/21
BETA 80 (1 00 = Market)

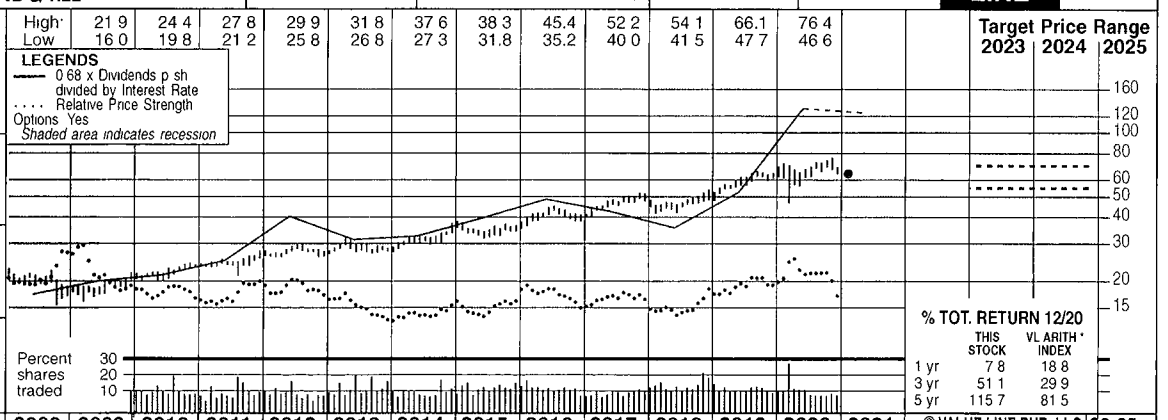
18-Month Target Price Range
Low-High Midpoint (% to Mid)
$51-$106 $79 (20%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	70	(+10%)	5%
Low	55	(-15%)	Nil

Institutional Decisions

	1Q2020	2Q2020	3Q2020
to Buy	365	343	356
to Sell	378	366	362
Hld's(000)	407479	412864	407854



2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
20 84	23 86	24 16	23.40	24.69	21.08	21.38	21.90	20 76	21 92	23.11	21 72	21.90	22 46	22.44	21.98	*21.15*	*22.15*	Revenues per sh	*24.25*
3.27	3.28	3.61	3.45	3 50	3 48	3 51	3 79	4 00	4 10	4 28	4 56	5 04	5.47	5.92	6.25	*6.60*	*7.20*	"Cash Flow" per sh	*9.00*
1.27	1.20	1.35	1.35	1 46	1 49	1 56	1.72	1 85	1.91	2 03	2.10	2 21	2.30	2.47	2.64	*2.80*	*2.95*	Earnings per sh [A]	*3.50*
.81	.85	88	91	.94	.97	1.00	1.03	1.07	1.11	1.20	1.28	1.36	1.44	1 52	1.62	1 72	*1.82*	Div'd Decl'd per sh [B] ■	*2.15*
3.19	3 25	4 00	4 89	4 66	3.91	4.60	4.53	5.27	6 82	6.33	7 26	6.42	6 54	7 70	8.05	*6.70*	*7.70*	Cap'l Spending per sh	*8.25*
12.99	13 37	14.28	14 70	15.35	15.92	16 76	17.44	18.19	19.21	20.20	20.89	21.73	22.56	23 78	25.24	*27.25*	*28.55*	Book Value per sh [C]	*33.25*
400.46	403.39	407 30	428.78	453.79	457 51	482.33	486 49	487 96	497 97	505.73	507 54	507 22	507 76	514.04	524.54	*539.00*	*542.00*	Common Shs Outst'g [D]	*555.00*
13.6	15 4	14.8	16 7	13 7	12 7	14 1	14.2	14 8	15.0	15 4	16.5	18.5	20.2	18.9	22.3	*23.8*		Avg Ann'l P/E Ratio	*18.0*
72	.82	80	.89	.82	.85	.90	89	.94	84	.81	83	97	1 02	1.02	1.19	*1.20*		Relative P/E Ratio	*1.00*
4.7%	4.6%	4 4%	4.0%	4.7%	5.1%	4.5%	4 2%	3 9%	3 9%	3.8%	3 7%	3 3%	3 1%	3.3%	2.7%	2.6%		Avg Ann'l Div'd Yield	*3.4%*
10311	10655	10128	10915	11686	11024	11107	11404	11537	11529	*11400*	*12000*	Revenues ($mill)	*13500*
727.0	841.4	905 2	948.2	1021.3	1063 6	1123 4	1171 0	1261 0	1372 0	*1480*	*1600*	Net Profit ($mill)	*1960*
37 5%	35 8%	33 2%	33 8%	33 9%	35 8%	34 1%	30.7%	12 6%	8 5%	*Nil*	*NMF*	Income Tax Rate	*NMF*
11 7%	9 4%	10 8%	13 4%	12 5%	7 7%	7 8%	9.4%	12.4%	8.3%	*11.0%*	*7.0%*	AFUDC % to Net Profit	*7.0%*
53.1%	51.1%	53.3%	53.3%	53.0%	54.1%	56.3%	55 9%	56 4%	56 8%	*57.0%*	*56.0%*	Long-Term Debt Ratio	*55.5%*
46 3%	48.9%	46.7%	46 7%	47 0%	45 9%	43 7%	44.1%	43.6%	43.2%	*43.0%*	*44.0%*	Common Equity Ratio	*44.5%*
17452	17331	19018	20477	21714	23092	25216	25975	28025	30646	*34350*	*35325*	Total Capital ($mill)	*41500*
20663	22353	23809	26122	28757	31206	32842	34329	36944	39483	*41000*	*42875*	Net Plant ($mill)	*48400*
5.7%	6.5%	6.1%	6.0%	6.0%	5.8%	5.7%	5 8%	5.7%	5.6%	*5.5%*	*5.5%*	Return on Total Cap'l	*6.0%*
8.9%	9.9%	10 2%	9.9%	10.0%	10 0%	10 2%	10 2%	10.3%	10.4%	*10.0%*	*10.5%*	Return on Shr. Equity	*10.5%*
8.9%	9 9%	10.2%	9.9%	10 0%	10.0%	10.2%	10.2%	10.3%	10.4%	*10.0%*	*10.5%*	Return on Com Equity [E]	*10.5%*
3.6%	4.3%	4.7%	4 5%	4.5%	4.3%	4 0%	3.9%	4 3%	4.4%	*4.0%*	*4.0%*	Retained to Com Eq	*4.0%*
59%	56%	54%	54%	55%	57%	61%	62%	58%	58%	*62%*	*61%*	All Div'ds to Net Prof	*61%*

CAPITAL STRUCTURE as of 9/30/20
Total Debt $20861 mill **Due in 5 Yrs** $3725 mill.
LT Debt $19960 mill **LT Interest** $800 mill
Incl $77 mill capitalized leases
(LT interest earned 2 8x)

Leases, Uncapitalized Annual rentals $262 mill
Pension Assets-12/19 $3184 mill
Oblig $3701 mill

Pfd Stock None

Common Stock 525,457,773 shs
as of 10/19/20
MARKET CAP: $34 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	-.7	+3 2	-1 2
Large C & I Use (MWH)	22642	23004	NA
Large C & I Revs per KWH (¢)	6 36	5.91	5.96
Capacity at Peak (Mw)	NA	NA	NA
Peak Load Summer (Mw)	19591	20293	20146
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr end)	+ 9	+1 1	+1 0
Fixed Charge Cov (%)	330	281	272

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	- 5%	.5%	*1.5%*
"Cash Flow"	5 5%	7 5%	*7.5%*
Earnings	5 5%	5 0%	*6 0%*
Dividends	5 0%	6.5%	*6 0%*
Book Value	4 5%	4 5%	*5 5%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	2946	2645	3017	2796	11404
2018	2951	2658	3048	2880	11537
2019	3141	2577	3013	2798	11529
2020	2811	2586	3182	*2821*	*11400*
2021	*3100*	*2700*	*3150*	*3050*	*12000*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	47	.45	.97	.42	2.30
2018	.57	.52	96	42	2 47
2019	61	46	1 01	.56	2.64
2020	.56	54	1.14	*.56*	*2.80*
2021	*.65*	*.55*	*1.15*	*.60*	*2.95*

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	34	36	36	.36	1.42
2018	36	38	38	.38	1.50
2019	.38	.405	.405	405	1 60
2020	405	.43	.43	.43	1.70
2021					

BUSINESS: Xcel Energy Inc is the parent of Northern States Power, which supplies electricity to Minnesota, Wisconsin, North Dakota, South Dakota & Michigan & gas to Minnesota, Wisconsin, North Dakota & Michigan, P S of Colorado, which supplies electricity & gas to Colorado, & Southwestern Public Service, which supplies electricity to Texas & New Mexico Customers 3 7 mill elec , 2 1 mill gas Elec rev breakdown res'l, 31%, sm comm'l & ind'l, 36%, lg comm'l & ind'l, 18%, other, 15% Generating sources not avail Fuel costs 39% of revs '19 reported depr. rate 3 3% Has 11,300 empls Chairman & CEO Ben Fowke President & COO Bob Frenzel Inc MN Address 414 Nicollet Mall, Minneapolis, MN 55401 Tel 612-330-5500 Internet www xcelenergy com

Xcel Energy's Northern States Power facility will not have a general rate case in Minnesota in 2021. NSP had filed a request for a multiyear rate hike over three years, but included an alternative proposal for a continuation of mechanisms that benefited the utility's earning power in 2020 by adjusting revenues for fluctuations in sales, earning a return on certain capital expenditures, and recouping higher property taxes. The commission adopted the alternative proposal, just as it did a year earlier. NSP did file a traditional rate case in North Dakota. The utility asked for a hike of $22 million (10.8%), based on a return on equity of 10.2% and a common-equity ratio of 52.5%. An interim increase of $16 million this month, and a final order is expected in the third quarter.

The Minnesota commission approved a proposal to repower some wind projects. This will add 650 megawatts of capacity at a cost of $750 million. NSP plans to ask the regulators to approve the addition of 460 mw of solar capacity at a projected cost of $650 million. The spending will occur from 2021 through 2024.

A rate filing is pending in New Mexico and upcoming in Texas. Southwestern Public Service filed for an $88 million increase in New Mexico, based on a 10.35% ROE and a 54.7% common-equity ratio. We were expecting an application in Texas as this report went to press. The utility wants to place a wind project in the rate base. Orders on the cases are expected later in 2021, but won't likely have much effect on Xcel's earning power until next year.

Earnings probably rose strongly in 2020, and we expect another solid increase this year. Xcel's utilities are benefiting from rate relief. Effective cost control is helping, too. We have raised our 2020 and 2021 share-earnings estimates $0.05 each year. These are within the company's guidance of $2.75-$2.81 and $2.90-$3.00 for 2020 and 2021, respectively.

This timely and high-quality equity has a low dividend yield for a utility. This is about a percentage point below the industry mean. Total return potential is attractive for the 18-month span, but low for the 2023-2025 period.

Paul E. Debbas, CFA *January 22, 2021*

(A) Diluted EPS Excl nonrecurring gain (losses) '10, 5¢, '15, (16¢), '17, (5¢), gains (losses) on discontinued ops '04, (30¢), '05, 3¢, '06, 1¢, '09, (1¢), '10, 1¢ '17 EPS don't sum due to rounding Next earnings report due late Jan (B) Div'ds historically paid mid-Jan , Apr., July, and Oct ■ Div'd reinvestment plan available (C) Incl intangibles In '19 $5 60/sh (D) In mill (E) Rate base: Varies Rate allowed on com eq (blended) 9 6%, earned on avg com eq , '19 10 8% Regulatory Climate Average

Company's Financial Strength	A+
Stock's Price Stability	95
Price Growth Persistence	65
Earnings Predictability	100

Southwestern Electric Power Company
Summary of Risk Premium Models for the
Proxy Group of Fourteen Electric Companies

	Proxy Group of Fourteen Electric Companies
Predictive Risk Premium Model (PRPM) (1)	10.77 %
Risk Premium Using an Adjusted Total Market Approach (2)	10.62 %
Average	10.70 %

Notes:
(1) From page 19 of this Schedule.
(2) From page 20 of this Schedule.

Southwestern Electric Power Company
Indicated ROE
Derived by the Predictive Risk Premium Model (1)

Proxy Group of Fourteen Electric Companies	[1] LT Average Predicted Variance	[2] Spot Predicted Variance	[3] Recommended Variance (2)	[4] GARCH Coefficient	[5] Predicted Risk Premium (3)	[6] Risk-Free Rate (4)	[7] Indicated ROE (5)
ALLETE, Inc.	0.29%	0.36%	0.29%	2.1616	7.67%	2.73%	10.40%
Alliant Energy Corporation	0.27%	0.33%	0.27%	2.6656	9.07%	2.73%	11.80%
Ameren Corporation	0.23%	0.26%	0.23%	2.0009	5.70%	2.73%	8.43%
Duke Energy	0.31%	0.31%	0.31%	1.8115	7.05%	2.73%	9.78%
Edison International	0.43%	0.62%	0.43%	1.4761	7.94%	2.73%	10.67%
Entergy Corporation	0.40%	0.57%	0.40%	2.2102	11.21%	2.73%	13.94%
Evergy, Inc.	0.39%	0.72%	0.39%	1.0754	5.20%	2.73%	7.93%
IDACORP, Inc.	0.29%	0.39%	0.29%	2.1914	7.86%	2.73%	10.59%
NorthWestern Corporation	0.35%	0.41%	0.35%	2.4360	10.70%	2.73%	13.43%
OGE Energy Corporation	0.31%	0.28%	0.31%	2.1493	8.27%	2.73%	11.00%
Otter Tail Corporation	0.38%	0.32%	0.38%	1.6238	7.56%	2.73%	10.29%
Pinnacle West Capital Corporation	0.60%	0.47%	0.60%	1.2527	9.47%	2.73%	12.20%
Portland General Electric Company	0.28%	0.26%	0.28%	2.0276	6.99%	2.73%	9.72%
Xcel Energy, Inc.	0.28%	0.31%	0.28%	2.8067	9.70%	2.73%	12.43%
						Average	10.90%
						Median	10.63%
					Average of Mean and Median		10.77%

Notes:

(1) The Predictive Risk Premium Model uses historical data to generate a predicted variance and a GARCH coefficient. The historical data used are the equity risk premiums for the first available trading month as reported by Bloomberg Professional Service.

(2) Given current market conditions, I recommend using the long-term predicted variance.

(3) (1+(Column [3] * Column [4])^12) - 1.

(4) From note 2 on page 32 of this Schedule.

(5) Column [5] + Column [6].

Southwestern Electric Power Company
Indicated Common Equity Cost Rate
Through Use of a Risk Premium Model
Using an Adjusted Total Market Approach

Line No.		Proxy Group of Fourteen Electric Companies
1.	Prospective Yield on Aaa Rated Corporate Bonds (1)	3.44 %
2.	Adjustment to Reflect Yield Spread Between Aaa Rated Corporate Bonds and A Rated Public Utility Bonds	0.42 (2)
3.	Adjusted Prospective Yield on A Rated Public Utility Bonds	3.86 %
4.	Adjustment to Reflect Bond Rating Difference of Proxy Group	0.09 (3)
5.	Adjusted Prospective Bond Yield	3.95 %
6.	Equity Risk Premium (4)	6.67
7.	Risk Premium Derived Common Equity Cost Rate	10.62 %

Notes:
(1) Consensus forecast of Moody's Aaa Rated Corporate bonds from Blue Chip Financial Forecasts (see pages 27-28 of this Schedule).
(2) The average yield spread of A rated public utility bonds over Aaa rated corporate bonds of 0.42% from page 21 of this Schedule.
(3) Adjustment to reflect the A3 Moody's LT issuer rating of the Utility Proxy Group as shown on page 5 of this Schedule. The 0.09% upward adjustment is derived by taking 1/3 of the spread between A2 and Baa2 Public Utility Bonds (1/3 * 0.27% = 0.09%) as derived from page 21 of this Schedule.
(4) From page 24 of this Schedule.

Southwestern Electric Power Company
Interest Rates and Bond Spreads for
Moody's Corporate and Public Utility Bonds

Selected Bond Yields

	[1] Aaa Rated Corporate Bond	[2] A Rated Public Utility Bond	[3] Baa Rated Public Utility Bond
Mar-2021	3.04 %	3.44 %	3.72 %
Feb-2021	2.70	3.09	3.37
Jan-2021	2.45	2.91	3.18
Average	2.73 %	3.15 %	3.42 %

Selected Bond Spreads

A Rated Public Utility Bonds Over Aaa Rated Corporate Bonds: 0.42 % (1)

Baa Rated Public Utility Bonds Over A Rated Public Utility Bonds: 0.27 % (2)

Notes:
(1) Column [2] - Column [1].
(2) Column [3] - Column [2].

Source of Information:
Bloomberg Professional Service

Southwestern Electric Power Company
Comparison of Long-Term Issuer Ratings for
Proxy Group of Fourteen Electric Companies

Proxy Group of Fourteen Electric Companies	Moody's Long-Term Issuer Rating March 2021		Standard & Poor's Long-Term Issuer Rating March 2021	
	Long-Term Issuer Rating (1)	Numerical Weighting (2)	Long-Term Issuer Rating (1)	Numerical Weighting (2)
ALLETE, Inc.	A3	7.0	NR	--
Alliant Energy Corporation	A3/Baa1	7.5	A/A-	6.5
Ameren Corporation	A3	7.0	BBB+	8.0
Duke Energy	A3	7.0	BBB+	8.0
Edison International	Baa2	9.0	BBB	9.0
Entergy Corporation	Baa1/Baa2	8.5	BBB+	8.0
Evergy, Inc.	Baa1	8.0	A-	7.0
IDACORP, Inc.	A3	7.0	BBB	9.0
NorthWestern Corporation	Baa2	9.0	BBB	9.0
OGE Energy Corporation	A3	7.0	A-	7.0
Otter Tail Corporation	A3	7.0	BBB+	8.0
Pinnacle West Capital Corporation	A2	6.0	A-	7.0
Portland General Electric Company	A3	7.0	BBB+	8.0
Xcel Energy, Inc.	A3	7.0	A-	7.0
Average	A3	7.4	BBB+	7.8

Notes:

(1) Ratings are that of the average of each company's utility operating subsidiaries.
(2) From page 23 of this Schedule.

Source Information: Moody's Investors Service
Standard & Poor's Global Utilities Rating Service

Numerical Assignment for
Moody's and Standard & Poor's Bond Ratings

Moody's Bond Rating	Numerical Bond Weighting	Standard & Poor's Bond Rating
Aaa	1	AAA
Aa1	2	AA+
Aa2	3	AA
Aa3	4	AA-
A1	5	A+
A2	6	A
A3	7	A-
Baa1	8	BBB+
Baa2	9	BBB
Baa3	10	BBB-
Ba1	11	BB+
Ba2	12	BB
Ba3	13	BB-
B1	14	B+
B2	15	B
B3	16	B-

Southwestern Electric Power Company
Judgment of Equity Risk Premium for
Proxy Group of Fourteen Electric Companies

Line No.		Proxy Group of Fourteen Electric Companies
1.	Calculated equity risk premium based on the total market using the beta approach (1)	8.46 %
2.	Mean equity risk premium based on a study using the holding period returns of public utilities with A rated bonds (2)	5.77
3.	Predicted Equity Risk Premium Based on Regression Analysis of 1,179 Fully-Litigated Electric Utility Rate Cases (3)	5.78
4.	Average equity risk premium	6.67 %

Notes: (1) From page 25 of this Schedule.
(2) From page 29 of this Schedule.
(3) From page 30 of this Schedule.

Southwestern Electric Power Company
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for the
Proxy Group of Fourteen Electric Companies

Line No.	Equity Risk Premium Measure	Proxy Group of Fourteen Electric Companies
	Ibbotson-Based Equity Risk Premiums:	
1.	Ibbotson Equity Risk Premium (1)	5.78 %
2.	Regression on Ibbotson Risk Premium Data (2)	8.85
3.	Ibbotson Equity Risk Premium based on PRPM (3)	9.74
4.	Equity Risk Premium Based on Value Line Summary and Index (4)	5.03
5.	Equity Risk Premium Based on Value Line S&P 500 Companies (5)	10.77
6.	Equity Risk Premium Based on Bloomberg S&P 500 Companies (6)	12.17
7.	Conclusion of Equity Risk Premium	8.72 %
8.	Adjusted Beta (7)	0.97
9.	Forecasted Equity Risk Premium	8.46 %

Notes provided on page 26 of this Schedule.

Southwestern Electric Power Company
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for the
Proxy Group of Fourteen Electric Companies

Notes:

(1) Based on the arithmetic mean historical monthly returns on large company common stocks from Ibbotson® SBBI® 2020 Market Report minus the arithmetic mean monthly yield of Moody's average Aaa and Aa corporate bonds from 1926-2019.

(2) This equity risk premium is based on a regression of the monthly equity risk premiums of large company common stocks relative to Moody's average Aaa and Aa rated corporate bond yields from 1928-2019 referenced in Note 1 above.

(3) The Predictive Risk Premium Model (PRPM) is discussed in the accompanying direct testimony. The Ibbotson equity risk premium based on the PRPM is derived by applying the PRPM to the monthly risk premiums between Ibbotson large company common stock monthly returns and average Aaa and Aa corporate monthly bond yields, from January 1928 through March 2021.

(4) The equity risk premium based on the Value Line Summary and Index is derived by subtracting the average consensus forecast of Aaa corporate bonds of 3.44% (from page 20 of this Schedule) from the projected 3-5 year total annual market return of 8.47% (described fully in note 1 on page 32 of this Schedule).

(5) Using data from Value Line for the S&P 500, an expected total return of 14.21% was derived based upon expected dividend yields and long-term earnings growth estimates as a proxy for capital appreciation. Subtracting the average consensus forecast of Aaa corporate bonds of 3.44% results in an expected equity risk premium of 10.77%.

(6) Using data from the Bloomberg Professional Service for the S&P 500, an expected total return of 15.61% was derived based upon expected dividend yields and long-term earnings growth estimates as a proxy for capital appreciation. Subtracting the average consensus forecast of Aaa corporate bonds of 3.44% results in an expected equity risk premium of 12.17%.

(7) Average of mean and median beta from page 31 of this Schedule.

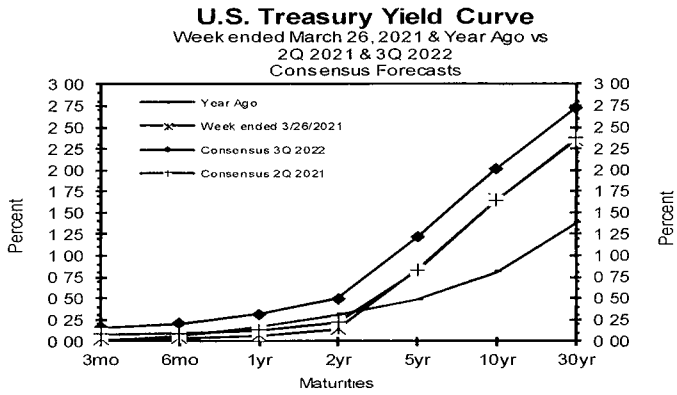
Sources of Information:

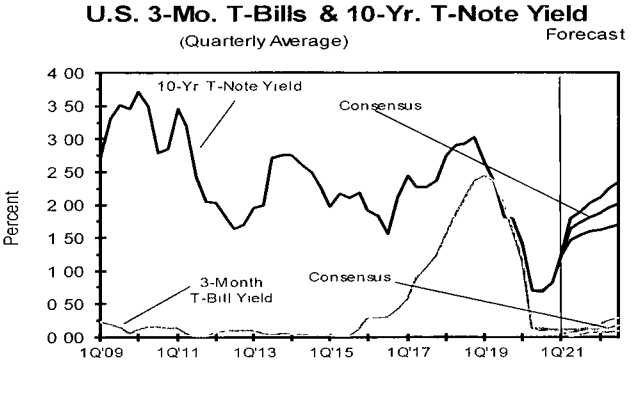
Stocks, Bonds, Bills, and Inflation - 2020 SBBI Yearbook, John Wiley & Sons, Inc.
Industrial Manual and Mergent Bond Record Monthly Update.
Value Line Summary and Index
Blue Chip Financial Forecasts, December 1, 2020 and April 1, 2021
Bloomberg Professional Service

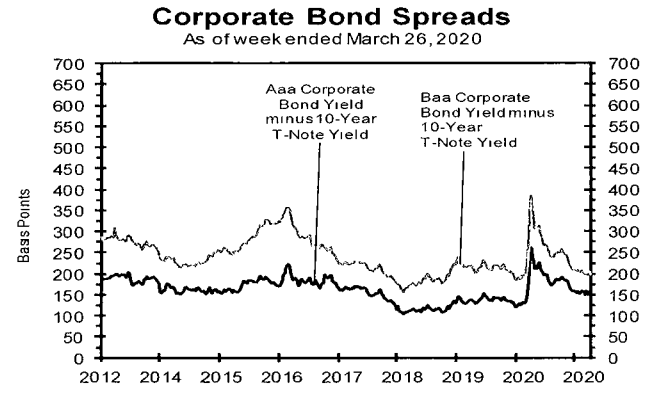
Consensus Forecasts of U.S. Interest Rates and Key Assumptions

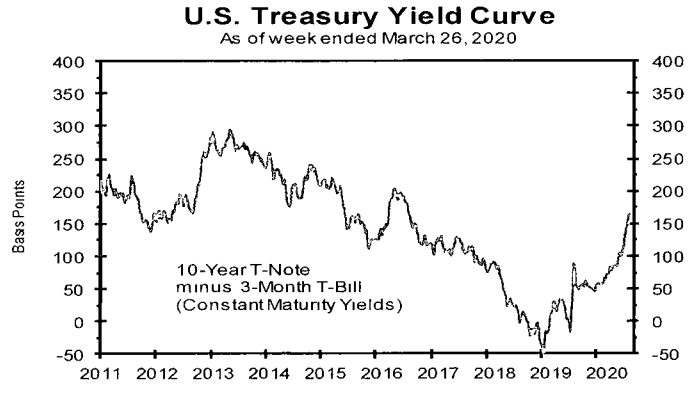
	History								Consensus Forecasts-Quarterly Avg.					
	Average For Week Ending				Average For Month			*Latest Qtr*	2Q	3Q	4Q	1Q	2Q	3Q
Interest Rates	Mar 26	Mar 19	Mar 12	Mar 5	Feb	Jan	Dec	1Q 2021*	**2021**	**2021**	**2021**	**2022**	**2022**	**2022**
Federal Funds Rate	0.07	0.07	0.07	0.07	0.08	0.09	0.09	0.08	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**
Prime Rate	3.25	3 25	3 25	3.25	3.25	3.25	3 25	3.25	**3.3**	**3.3**	**3.3**	**3.3**	**3.3**	**3.3**
LIBOR, 3-mo	0 20	0 19	0 18	0.18	0.19	0.22	0 23	0.20	**0.2**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**
Commercial Paper, 1-mo	0 07	0 07	0 07	0.06	0.06	0.08	0 09	0 07	**0.1**	**0.1**	**0.1**	**0.1**	**0.2**	**0.2**
Treasury bill, 3-mo.	0.02	0.02	0.04	0.04	0.04	0.08	0.09	0 05	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.2**
Treasury bill, 6-mo.	0 04	0.05	0.06	0.07	0.06	0.09	0.09	0.07	**0.1**	**0.1**	**0.1**	**0.1**	**0.2**	**0.2**
Treasury bill, 1 yr.	0.07	0.07	0.09	0.08	0.07	0.10	0.10	0.08	**0.1**	**0.2**	**0.2**	**0.2**	**0.3**	**0.3**
Treasury note, 2 yr.	0 14	0.15	0.16	0.14	0 12	0.13	0.14	0.13	**0.2**	**0.3**	**0.3**	**0.4**	**0.4**	**0.5**
Treasury note, 5 yr.	0 84	0.85	0.82	0.73	0.54	0.45	0.39	0.61	**0.8**	**0.9**	**1.0**	**1.1**	**1.1**	**1.2**
Treasury note, 10 yr.	1 65	1.66	1.57	1.49	1.26	1.08	0 93	1.32	**1.6**	**1.7**	**1.8**	**1.9**	**2.0**	**2.0**
Treasury note, 30 yr.	2.35	2 41	2.30	2.25	2.04	1.82	1 67	2.08	**2.4**	**2.5**	**2.5**	**2.6**	**2.7**	**2.7**
Corporate Aaa bond	3.15	3.23	3 13	3.06	2.84	2.64	2.52	2.88	**3.0**	**3.1**	**3.2**	**3.3**	**3.4**	**3.4**
Corporate Baa bond	3.63	3.71	3.62	3.52	3.30	3.14	3.03	3.36	**3.9**	**4.0**	**4.1**	**4.2**	**4.3**	**4.4**
State & Local bonds	2.75	2.74	2 72	2.77	2.63	2.65	2.70	2 68	**2.7**	**2.9**	**3.0**	**3.0**	**3.1**	**3.2**
Home mortgage rate	3.17	3.09	3.05	3.02	2.81	2.74	2.68	2 88	**3.2**	**3.3**	**3.4**	**3.5**	**3.6**	**3.7**
	History								Consensus Forecasts-Quarterly					
	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q
Key Assumptions	2019	2019	2019	2020	2020	2020	2020	2021**	**2021**	**2021**	**2021**	**2022**	**2022**	**2022**
Fed's AFE $ Index	110.4	110.6	110.5	111 4	112.4	107.3	105.2	103 4	**104.0**	**103.9**	**103.9**	**103.6**	**103.5**	**103.4**
Real GDP	1.5	2.6	2.4	-5.0	-31.4	33 4	4.3	4.3	**8.1**	**6.9**	**4.8**	**3.5**	**3.0**	**2.7**
GDP Price Index	2.5	1.5	1.4	1.4	-1.8	3 5	2.0	2.2	**2.1**	**2.1**	**2.0**	**1.9**	**2.1**	**2.2**
Consumer Price Index	3.5	1 3	2.6	1.0	-3.1	4 7	2.4	2.8	**2.4**	**2.1**	**2.0**	**2.0**	**2.1**	**2.2**
PCE Price Index	2.5	1.4	1.5	1.3	-1.6	3.7	1.5	2.7	**2.2**	**2.0**	**1.9**	**1.9**	**2.0**	**2.1**

Forecasts for interest rates and the Federal Reserve's Major Currency Index represent averages for the quarter Forecasts for Real GDP, GDP Price Index and Consumer Price Index are seasonally-adjusted annual rates of change (saar) Individual panel members' forecasts are on pages 4 through 9 Historical data Treasury rates from the Federal Reserve Board's H 15, AAA-AA and A-BBB corporate bond yields from Bank of America-Merrill Lynch and are 15+ years, yield to maturity, State and local bond yields from Bank of America-Merrill Lynch, A-rated, yield to maturity, Mortgage rates from Freddie Mac, 30-year, fixed, LIBOR quotes from Intercontinental Exchange All interest rate data are sourced from Haver Analytics Historical data for Fed's Major Currency Index are from FRSR H 10 Historical data for Real GDP and GDP Chained Price Index are from the Bureau of Economic Analysis (BEA) Consumer Price Index (CPI) history is from the Department of Labor's Bureau of Labor Statistics (BLS) *Interest rate data for 1Q 2021 based on historical data through the week ended March 26 **Data for 1Q 2021 for the Fed's AFE $ Index based on data through the week ended March 26 Figures for 1Q 2021 Real GDP, GDP Chained Price Index and CPI and PCE Price Index are consensus forecasts from the March 2021 survey









Long-Range Survey:

The table below contains the results of our twice-annual long-range CONSENSUS survey There are also Top 10 and Bottom 10 averages for each variable Shown are consensus estimates for the years 2022 through 2026 and averages for the five-year periods 2022-2026 and 2027-2031. Apply these projections cautiously Few if any economic, demographic and political forces can be evaluated accurately over such long time spans.

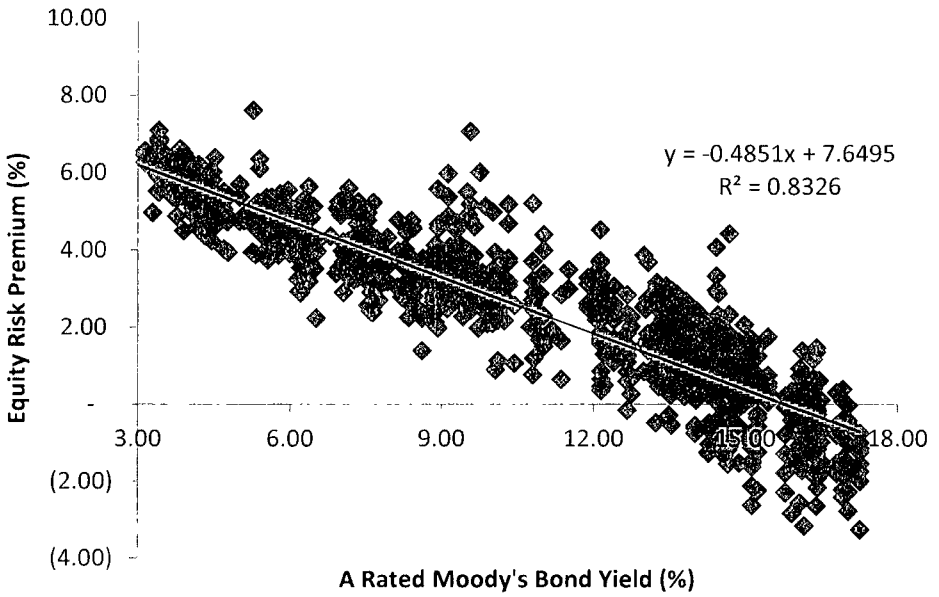
		Average For The Year					Five-Year Averages	
		2022	2023	2024	2025	2026	2022-2026	2027-2031
1 Federal Funds Rate	**CONSENSUS**	**0.1**	**0.3**	**0.7**	**1.2**	**1.5**	**0.8**	**1.8**
	Top 10 Average	0 2	0 7	1 4	2 0	2 4	1 3	2 5
	Bottom 10 Average	0 1	0 1	0 2	0 4	0 6	0 3	1 2
2. Prime Rate	**CONSENSUS**	**3.3**	**3.5**	**3.9**	**4.3**	**4.6**	**3.9**	**4.9**
	Top 10 Average	3 4	3 7	4 4	5 0	5 4	4 4	5 4
	Bottom 10 Average	3 2	3 2	3 3	3 5	3 8	3 4	4 5
3 LIBOR, 3-Mo	**CONSENSUS**	**0.4**	**0.6**	**1.1**	**1.5**	**1.8**	**1.1**	**2.2**
	Top 10 Average	0 5	1 0	1 7	2 2	2 6	1 6	2 7
	Bottom 10 Average	0 3	0 3	0 5	0 8	1 1	0 6	1 6
4 Commercial Paper, 1-Mo	**CONSENSUS**	**0.3**	**0.7**	**1.2**	**1.6**	**1.9**	**1.1**	**2.1**
	Top 10 Average	0 4	0 9	1 6	2 1	2 4	1 5	2 5
	Bottom 10 Average	0 2	0 4	0 8	1 2	1 5	0 8	1 7
5 Treasury Bill Yield, 3-Mo	**CONSENSUS**	**0.2**	**0.4**	**0.8**	**1.2**	**1.5**	**0.8**	**1.9**
	Top 10 Average	0 3	0 7	1 5	2 0	2 4	1 4	2 5
	Bottom 10 Average	0 1	0 1	0 2	0 5	0 7	0 3	1 3
6 Treasury Bill Yield, 6-Mo	**CONSENSUS**	**0.2**	**0.5**	**0.9**	**1.3**	**1.6**	**0.9**	**2.0**
	Top 10 Average	0 3	0 8	1 6	2 1	2 5	1 5	2 6
	Bottom 10 Average	0 1	0 2	0 3	0 5	0 8	0 4	1 4
7. Treasury Bill Yield, 1-Yr	**CONSENSUS**	**0.3**	**0.6**	**1.0**	**1.4**	**1.8**	**1.0**	**2.1**
	Top 10 Average	0 5	1 0	1 7	2 3	2 6	1 6	2 7
	Bottom 10 Average	0 2	0 3	0 4	0 7	0 9	0 5	1 6
8 Treasury Note Yield, 2-Yr	**CONSENSUS**	**0.4**	**0.8**	**1.2**	**1.6**	**1.9**	**1.2**	**2.3**
	Top 10 Average	0 7	1 2	1 9	2 4	2 8	1 8	2 9
	Bottom 10 Average	0 2	0 3	0 6	0 8	1 1	0 6	1 7
9 Treasury Note Yield, 5-Yr	**CONSENSUS**	**0.8**	**1.2**	**1.6**	**2.0**	**2.3**	**1.5**	**2.5**
	Top 10 Average	1 1	1 6	2 3	2 8	3 1	2 1	3 1
	Bottom 10 Average	0 5	0 7	1 0	1 2	1 4	1 0	1 9
10 Treasury Note Yield, 10-Yr	**CONSENSUS**	**1.3**	**1.7**	**2.0**	**2.4**	**2.6**	**2.0**	**2.8**
	Top 10 Average	1 7	2 2	2 7	3 1	3 4	2 6	3 5
	Bottom 10 Average	0 9	1 2	1 4	1 7	1 8	1 4	2 2
11 Treasury Bond Yield, 30-Yr	**CONSENSUS**	**2.1**	**2.4**	**2.8**	**3.1**	**3.4**	**2.8**	**3.6**
	Top 10 Average	2 5	3 0	3 5	4 0	4 2	3 4	4 3
	Bottom 10 Average	1 6	1 9	2 2	2 4	2 6	2 1	2 9
12. Corporate Aaa Bond Yield	**CONSENSUS**	**2.8**	**3.2**	**3.6**	**4.0**	**4.2**	**3.6**	**4.5**
	Top 10 Average	3 1	3 6	4 2	4 6	4 9	4 1	5 0
	Bottom 10 Average	2 4	2 8	3 0	3 3	3 6	3 0	3 9
13. Corporate Baa Bond Yield	**CONSENSUS**	**3.9**	**4.3**	**4.7**	**5.0**	**5.2**	**4.6**	**5.4**
	Top 10 Average	4 3	4 7	5 2	5 6	5 9	5 1	6 0
	Bottom 10 Average	3 5	3 9	4 1	4 3	4 5	4 1	4 9
14 State & Local Bonds Yield	**CONSENSUS**	**2.8**	**3.1**	**3.4**	**3.6**	**3.8**	**3.3**	**3.9**
	Top 10 Average	3 1	3 5	3 8	4 1	4 3	3 8	4 3
	Bottom 10 Average	2 5	2 8	2 9	3 2	3 4	2 9	3 6
15. Home Mortgage Rate	**CONSENSUS**	**3.2**	**3.5**	**3.9**	**4.2**	**4.5**	**3.9**	**4.7**
	Top 10 Average	3 5	3 9	4 4	4 9	5 2	4 4	5 2
	Bottom 10 Average	2 9	3 2	3 4	3 6	3 8	3 4	4 2
A Fed's AFE Nominal $ Index	**CONSENSUS**	**107.2**	**107.0**	**106.5**	**106.4**	**106.6**	**106.7**	**106.7**
	Top 10 Average	109 0	108 9	108 8	108 9	109 5	109 0	110 2
	Bottom 10 Average	105 4	105 2	104 4	103 8	103 7	104 5	103 0
		Year-Over-Year, % Change					Five-Year Averages	
		2022	2023	2024	2025	2026	2022-2026	2027-2031
B. Real GDP	**CONSENSUS**	**3.2**	**2.5**	**2.3**	**2.2**	**2.1**	**2.4**	**2.1**
	Top 10 Average	3 8	3 0	2 6	2 5	2 4	2 9	2 4
	Bottom 10 Average	2 6	2 1	1 9	1 9	1 8	2 1	1 8
C GDP Chained Price Index	**CONSENSUS**	**1.9**	**2.0**	**2.1**	**2.1**	**2.1**	**2.0**	**2.1**
	Top 10 Average	2 2	2 3	2 3	2 3	2 3	2 3	2 3
	Bottom 10 Average	1 7	1 8	1 9	1 9	1 9	1 8	1 9
D Consumer Price Index	**CONSENSUS**	**2.1**	**2.2**	**2.2**	**2.1**	**2.2**	**2.1**	**2.2**
	Top 10 Average	2 4	2 4	2 4	2 4	2 4	2 4	2 4
	Bottom 10 Average	1 8	1 9	1 9	1 9	1 9	1 9	1 9
E PCE Price Index	**CONSENSUS**	**1.9**	**2.0**	**2.1**	**2.1**	**2.1**	**2.0**	**2.1**
	Top 10 Average	2 2	2 2	2 2	2 2	2 3	2 2	2 4
	Bottom 10 Average	1 7	1 8	1 9	1 9	1 9	1 8	1 9

Southwestern Electric Power Company
Derivation of Mean Equity Risk Premium Based Studies
Using Holding Period Returns and
Projected Market Appreciation of the S&P Utility Index

Line No.		Implied Equity Risk Premium
	Equity Risk Premium based on S&P Utility Index Holding Period Returns (1):	
1.	Historical Equity Risk Premium	4.21 %
2.	Regression of Historical Equity Risk Premium (2)	6.58
3.	Forecasted Equity Risk Premium Based on PRPM (3)	5.60
4.	Forecasted Equity Risk Premium based on Projected Total Return on the S&P Utilities Index (Value Line Data) (4)	6.75
5.	Forecasted Equity Risk Premium based on Projected Total Return on the S&P Utilities Index (Bloomberg Data) (5)	5.72
6.	Average Equity Risk Premium (6)	5.77 %

Notes:
(1) Based on S&P Public Utility Index monthly total returns and Moody's Public Utility Bond average monthly yields from 1928-2019. Holding period returns are calculated based upon income received (dividends and interest) plus the relative change in the market value of a security over a one-year holding period.
(2) This equity risk premium is based on a regression of the monthly equity risk premiums of the S&P Utility Index relative to Moody's A rated public utility bond yields from 1928 - 2019 referenced in note 1 above.
(3) The Predictive Risk Premium Model (PRPM) is applied to the risk premium of the monthly total returns of the S&P Utility Index and the monthly yields on Moody's A rated public utility bonds from January 1928 - March 2021.
(4) Using data from Value Line for the S&P Utilities Index, an expected return of 10.61% was derived based on expected dividend yields and long-term growth estimates as a proxy for market appreciation. Subtracting the expected A rated public utility bond yield of 3.86%, calculated on line 3 of page 20 of this Schedule results in an equity risk premium of 6.75%. (10.61% - 3.86% = 6.75%)
(5) Using data from Bloomberg Professional Service for the S&P Utilities Index, an expected return of 9.58% was derived based on expected dividend yields and long-term growth estimates as a proxy for market appreciation. Subtracting the expected A rated public utility bond yield of 3.86%, calculated on line 3 of page 20 of this Schedule results in an equity risk premium of 5.72%. (9.58% - 3.86% = 5.72%)
(6) Average of lines 1 through 5.

Southwestern Electric Power Company
Prediction of Equity Risk Premiums Relative to
Moody's A Rated Utility Bond Yields



Constant	Slope	Prospective A2 Rated Utility Bond (1)	Prospective Equity Risk Premium
7.649492 %	-0.48508	3.86 %	5.78 %

Notes:
(1) From line 3 of page 20 of this Schedule.

Source of Information: Regulatory Research Associates

Southwestern Electric Power Company
Indicated Common Equity Cost Rate Through Use
of the Traditional Capital Asset Pricing Model (CAPM) and Empirical Capital Asset Pricing Model (ECAPM)

Proxy Group of Fourteen Electric Companies	[1] Value Line Adjusted Beta	[2] Bloomberg Adjusted Beta	[3] Average Beta	[4] Market Risk Premium (1)	[5] Risk-Free Rate (2)	[6] Traditional CAPM Cost Rate	[7] ECAPM Cost Rate	[8] Indicated Common Equity Cost Rate (3)
ALLETE, Inc.	0.90	1.07	0.99	9.59 %	2.73 %	12.22 %	12.24 %	12.23 %
Alliant Energy Corporation	0.85	1.02	0.93	9.59	2.73	11.64	11.81	11.73
Ameren Corporation	0.80	0.95	0.88	9.59	2.73	11.17	11.45	11.31
Duke Energy	0.85	0.98	0.91	9.59	2.73	11.45	11.67	11.56
Edison International	0.95	1.09	1.02	9.59	2.73	12.51	12.46	12.48
Entergy Corporation	0.95	1.17	1.06	9.59	2.73	12.89	12.75	12.82
Evergy, Inc.	0.95	1.05	1.00	9.59	2.73	12.32	12.32	12.32
IDACORP, Inc.	0.80	1.04	0.92	9.59	2.73	11.55	11.74	11.64
NorthWestern Corporation	0.95	1.25	1.10	9.59	2.73	13.27	13.03	13.15
OGE Energy Corporation	1.05	1.25	1.15	9.59	2.73	13.75	13.39	13.57 (4)
Otter Tail Corporation	0.85	1.07	0.96	9.59	2.73	11.93	12.03	11.98
Pinnacle West Capital Corporation	0.90	1.13	1.02	9.59	2.73	12.51	12.46	12.48
Portland General Electric Company	0.85	1.05	0.95	9.59	2.73	11.84	11.96	11.90
Xcel Energy, Inc.	0.80	0.98	0.89	9.59	2.73	11.26	11.53	11.39
Mean			0.97			12.04 %	12.11 %	12.08 %
Median			0.96			11.93 %	12.03 %	11.98 %
Average of Mean and Median			0.97			11.99	12.07	12.03 %

Notes on page 32 of this Schedule.

Southwestern Electric Power Company
Notes to Accompany the Application of the CAPM and ECAPM

Notes:

(1) The market risk premium (MRP) is derived by using six different measures from three sources. Ibbotson, Value Line, and Bloomberg as illustrated below:

Historical Data MRP Estimates

Measure 1: Ibbotson Arithmetic Mean MRP (1926-2019)

Arithmetic Mean Monthly Returns for Large Stocks 1926-2019:	12.10 %
Arithmetic Mean Income Returns on Long-Term Government Bonds	5.09
MRP based on Ibbotson Historical Data.	7 01 %

Measure 2 Application of a Regression Analysis to Ibbotson Historical Data (1926-2019) 9.56 %

Measure 3 Application of the PRPM to Ibbotson Historical Data. (January 1926 - March 2021) 10 85 %

Value Line MRP Estimates:

Measure 4: Value Line Projected MRP (Thirteen weeks ending April 02, 2021)

Total projected return on the market 3-5 years hence*·	8 47 %
Projected Risk-Free Rate (see note 2):	2 73
MRP based on Value Line Summary & Index:	5.74 %

Measure 5 Value Line Projected Return on the Market based on the S&P 500

Total return on the Market based on the S&P 500	14.21 %
Projected Risk-Free Rate (see note 2):	2.73
MRP based on Value Line data	11.48 %

Measure 6. Bloomberg Projected MRP

Total return on the Market based on the S&P 500:	15 61 %
Projected Risk-Free Rate (see note 2):	2 73
MRP based on Bloomberg data	12 88 %

Average of Value Line, Ibbotson, and Bloomberg MRP 9.59 %

(2) For reasons explained in the direct testimony, the appropriate risk-free rate for cost of capital purposes is the average forecast of 30 year Treasury Bonds per the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts (See pages 27-28 of this Schedule) The projection of the risk-free rate is illustrated below

Second Quarter 2021	2 40 %
Third Quarter 2021	2 50
Fourth Quarter 2021	2.50
First Quarter 2022	2 60
Second Quarter 2022	2.70
Third Quarter 2022	2.70
2022-2026	2.80
2027-2031	3.60
	2 73 %

(3) Average of Column 6 and Column 7

(4) OGE's CAPM results were excluded from the final average and median as they were more than 2 standard deviations above the proxy group's mean

Sources of Information:

Value Line Summary and Index
Blue Chip Financial Forecasts, December 1, 2020 and April 1, 2021
Stocks, Bonds, Bills, and Inflation - 2020 SBBI Yearbook, John Wiley & Sons, Inc.
Bloomberg Professional Services

Southwestern Electric Power Company
Basis of Selection of the Group of Non-Price Regulated Companies
Comparable in Total Risk to the Utility Proxy Group

The criteria for selection of the proxy group of forty-five non-price regulated companies was that the non-price regulated companies be domestic and reported in Value Line Investment Survey (Standard Edition).

The Non-Price Regulated Proxy Group were then selected based on the unadjusted beta range of 0.66 – 0.94 and residual standard error of the regression range of 2.5544 – 3.0468 of the Utility Proxy Group.

These ranges are based upon plus or minus two standard deviations of the unadjusted beta and standard error of the regression. Plus or minus two standard deviations captures 95.50% of the distribution of unadjusted betas and residual standard errors of the regression.

The standard deviation of the Utility Proxy Group's residual standard error of the regression is 0.1231. The standard deviation of the standard error of the regression is calculated as follows:

$$\text{Standard Deviation of the Std. Err. of the Regr.} = \frac{\text{Standard Error of the Regression}}{\sqrt{2N}}$$

where: N = number of observations. Since Value Line betas are derived from weekly price change observations over a period of five years, N = 259

$$\text{Thus, } 0.1231 = \frac{2.8006}{\sqrt{518}} = \frac{2.8006}{22.7596}$$

Source of Information: Value Line, Inc., March 2021
Value Line Investment Survey (Standard Edition)

Southwestern Electric Power Company
Basis of Selection of Comparable Risk
Domestic Non-Price Regulated Companies

Proxy Group of Fourteen Electric Companies	[1] Value Line Adjusted Beta	[2] Unadjusted Beta	[3] Residual Standard Error of the Regression	[4] Standard Deviation of Beta
ALLETE, Inc.	0.90	0.79	2.7853	0.0695
Alliant Energy Corporation	0.85	0.70	2.7878	0.0696
Ameren Corporation	0.80	0.68	2.6125	0.0652
Duke Energy	0.85	0.75	2.7871	0.0695
Edison International	0.95	0.91	3.2791	0.0818
Entergy Corporation	0.95	0.87	2.6764	0.0668
Evergy, Inc.	0.95	0.91	3.3442	0.0892
IDACORP, Inc.	0.80	0.68	2.5678	0.0641
NorthWestern Corporation	0.95	0.87	2.8342	0.0707
OGE Energy Corporation	1.05	1.04	2.7132	0.0677
Otter Tail Corporation	0.85	0.77	2.4704	0.0616
Pinnacle West Capital Corporation	0.90	0.82	2.7915	0.0697
Portland General Electric Company	0.90	0.77	2.8436	0.0710
Xcel Energy, Inc.	0.80	0.65	2.7151	0.0677
Average	0.89	0.80	2.8006	0.0703

Beta Range (+/- 2 std. Devs. of Beta)	0.66	0.94
2 std. Devs. of Beta	0.14	
Residual Std. Err. Range (+/- 2 std. Devs. of the Residual Std. Err.)	2.5544	3.0468
Std. dev. of the Res. Std. Err.	0.1231	
2 std. devs. of the Res. Std. Err.	0.2462	

Source of Information: Valueline Proprietary Database, March 2021

Southwestern Electric Power Company
Proxy Group of Non-Price Regulated Companies
Comparable in Total Risk to the
Proxy Group of Fourteen Electric Companies

Proxy Group of Forty-Five Non-Price Regulated Companies	[1] VL Adjusted Beta	[2] Unadjusted Beta	[3] Residual Standard Error of the Regression	[4] Standard Deviation of Beta
Abbott Labs.	0.95	0.88	2.7401	0.0684
Analog Devices	0.95	0.88	2.6493	0 0661
Assurant Inc.	0.90	0 84	2.9537	0 0737
ANSYS, Inc.	0.85	0 74	2 8841	0.0720
Smith (A.O)	0 85	0.77	2 6911	0.0672
Brown-Forman 'B'	0.90	0.77	2.7453	0.0685
Broadridge Fin'l	0.85	0.70	2.7332	0.0682
Brady Corp	1.00	0.93	3 0007	0.0749
Cadence Design Sys.	0 90	0 79	3.0338	0.0757
Cerner Corp	0.90	0.84	2.7309	0 0681
Chemed Corp.	0 85	0.71	2.5922	0.0647
Cooper Cos.	0.95	0 90	2.7184	0.0678
CSW Industrials	0.90	0 81	2 8884	0.0721
Quest Diagnostics	0.85	0.75	2 7411	0.0684
Dolby Labs.	0.95	0 86	2 6998	0.0674
Lauder (Estee)	0 95	0 85	2 8216	0.0704
Exponent, Inc.	0.90	0 79	2 9131	0 0727
Gentex Corp.	0.95	0.91	2.7546	0.0687
Hershey Co	0.85	0 73	2.7004	0.0674
Ingredion Inc.	0.90	0 78	2 8793	0.0718
Hunt (J.B)	0.95	0 86	2 8344	0.0707
J&J Snack Foods	0 90	0.84	2.9208	0 0729
Henry (Jack) & Assoc	0 85	0 71	2.7734	0.0692
Lennox Int'l	1.00	0 93	2.6499	0.0661
MAXIMUS Inc.	0.80	0.67	2.6635	0 0665
Altria Group	0 90	0 83	2 9215	0 0729
MSA Safety	1.00	0 94	3 0076	0 0750
MSCI Inc.	0.95	0 87	2 9662	0 0740
Motorola Solutions	0.90	0 80	2.7926	0 0697
Maxim Integrated	0.95	0.87	2.9404	0.0734
Northrop Grumman	0.85	0 71	2.9032	0 0724
PerkinElmer Inc	0.95	0 86	2.8896	0 0721
Post Holdings	0.95	0.86	3 0105	0.0751
Rollins, Inc	0 85	0.73	2 9697	0.0741
Sherwin-Williams	0 90	0 84	2 6989	0 0673
Selective Ins. Group	0.85	0 77	3 0004	0 0749
Sirius XM Holdings	0.95	0 91	2.7995	0 0699
Sensient Techn	0.90	0 81	2.5553	0 0638
Tetra Tech	0.90	0 84	3.0245	0.0755
AMERCO	0 95	0.91	2 6511	0.0662
UniFirst Corp	1 00	0.94	2 6748	0.0667
VeriSign Inc.	0 90	0.82	2 6587	0 0663
Waters Corp.	0 95	0.86	2 7531	0.0687
Watsco, Inc.	0.85	0.73	2 7166	0.0678
Western Union	0 80	0.67	2 7346	0 0682
Average	0 91	0.82	2 8085	0.0701
Proxy Group of Fourteen Electric Companies	0.89	0.80	2 8006	0.0703

Source of Information: Valueline Proprietary Database, March 2021

Southwestern Electric Power Company
Summary of Cost of Equity Models Applied to
Proxy Group of Forty-Five Non-Price Regulated Companies
Comparable in Total Risk to the
Proxy Group of Fourteen Electric Companies

Principal Methods	Proxy Group of Forty-Five Non-Price Regulated Companies
Discounted Cash Flow Model (DCF) (1)	11.62 %
Risk Premium Model (RPM) (2)	12.47
Capital Asset Pricing Model (CAPM) (3)	11.69
Mean	11.93 %
Median	11.69 %
Average of Mean and Median	11.81 %

Notes:
(1) From page 37 of this Schedule.
(2) From page 38 of this Schedule.
(3) From page 41 of this Schedule.

Southwestern Electric Power Company
DCF Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Fourteen Electric Companies

	[1]	[2]	[3]		[4]	[5]	[6]	[7]
Proxy Group of Forty-Five Non-Price Regulated Companies	Average Dividend Yield	Value Line Projected Five Year Growth in EPS	Zack's Five Year Projected Growth Rate in EPS	Bloomberg's Five Year Projected Growth Rate in EPS	Yahoo! Finance Projected Five Year Growth in EPS	Average Projected Five Year Growth Rate in EPS	Adjusted Dividend Yield	Indicated Common Equity Cost Rate (1)
Abbott Labs	1 52 %	12 00 %	14.00 %	14 20 %	15 58 %	13 94 %	1 63 %	15.57 %
Analog Devices	1 79	8 50	12 30	11.60	11.78	11.05	1 89	12.94
Assurant Inc	1 96	11 50	NA	NA	19.40	15 45	2 11	17 56
ANSYS, Inc	-	10 00	NA	12.05	8 00	10 02	-	NA
Smith (A O)	1 71	5 00	9 00	10 00	8 00	8 00	1 78	9 78
Brown-Forman 'B'	0 98	12 00	NA	5 39	7 53	8 31	1 02	9 33
Broadridge Fin'l	1.56	10.50	NA	10 70	10 00	10 40	1 64	12 04
Brady Corp	1 68	8 00	7 00	7 33	7 00	7 33	1 74	9 07
Cadence Design Sys	-	13 00	11 10	11 90	11.10	11 78	-	NA
Cerner Corp.	1.17	8 00	12 30	8 61	11 51	10 11	1 23	11 34
Chemed Corp	0 28	12 50	7 00	6 95	6 95	8 35	0 29	8 64
Cooper Cos	0 02	14.50	11 00	10 50	10 00	11 50	0 02	11 52
CSW Industrials	0 42	8 50	NA	NA	12 00	10 25	0 44	10 69
Quest Diagnostics	2 01	10.00	26 50	(6 93)	9 22	15 24	2 16	17 40
Dolby Labs	0 92	10 50	13 00	NA	16 00	13 17	0 98	14 15
Lauder (Estee)	0 77	11 00	10.70	17.23	21.10	15 01	0 83	15.84
Exponent, Inc	0 85	12 00	NA	13 30	15 00	13 43	0 91	14 34
Gentex Corp	1.35	10 50	4 70	10 25	15 80	10 31	1 42	11 73
Hershey Co	2 14	5 00	7.70	4 70	7 60	6 25	2 21	8 46
Ingredion Inc	2 99	6 00	NA	11 00	1 90	6 30	3 08	9 38
Hunt (J B)	0 74	6 50	15.00	17 23	20 73	14 87	0 80	15 67
J&J Snack Foods	1 47	10.00	NA	NA	6 00	8 00	1 53	9 53
Henry (Jack) & Assoc	1 21	10 50	10 90	12 47	10 02	10 97	1 28	12 25
Lennox Int'l	1.06	10.00	NA	10 30	8 47	9 59	1 11	10.70
MAXIMUS Inc	1 37	10 50	NA	5 00	12 50	9 33	1 43	10 76
Altria Group	7 66	6 50	4 00	2.70	4.42	4.41	7 83	12.24
MSA Safety	1 07	6 50	NA	9.00	18 00	11 17	1 13	12.30
MSCI Inc	0 74	18 00	NA	12.20	14 37	14.86	0 79	15.65
Motorola Solutions	1 59	7 00	9 00	11 30	5 88	8 30	1 66	9 96
Maxim Integrated	-	8 00	10 00	11 30	18 44	11 94	-	NA
Northrop Grumman	1 92	7 00	NA	4 96	5 44	5 80	1 98	7 78
PerkinElmer Inc.	0.20	17 50	19 50	(6 87)	17 20	18 07	0 22	18 29
Post Holdings	-	11 50	NA	20 30	31 20	21 00	-	NA
Rollins, Inc.	0.89	11 50	NA	NA	8 20	9 85	0 93	10 78
Sherwin-Wilhams	0.92	10 00	10 70	8 32	9 49	9 63	0.96	10.59
Selective Ins Group	1 44	8 50	NA	NA	5 10	6.80	1 49	8.29
Sirius XM Holdings	0 96	24 50	14 80	26 96	12.93	19 80	1.06	20.86 (2)
Sensient Techn	2 03	2 50	NA	10 70	3 80	5 67	2 09	7 76
Tetra Tech	0 51	13 50	15 00	13 85	15.00	14 34	0 55	14.89
AMERCO	-	8 00	NA	13 00	15 00	12 00	-	NA
UniFirst Corp	0 43	4 00	NA	10.00	10.00	8 00	0 45	8.45
VeriSign Inc	-	9 50	NA	4 30	8 00	7 27	-	NA
Waters Corp	-	6 00	8 80	9 03	7 17	7 75	-	NA
Watsco, Inc	2 88	7 00	NA	NA	15 00	11 00	3 04	14 04
Western Union	3.99	6 00	NA	4 57	9.25	6 61	4.12	10.73
							Mean	11 90 %
							Median	11.34 %
							Average of Mean and Median	11 62 %

NA= Not Available
NMF= Not Meaningful Figure

(1) The application of the DCF model to the domestic, non-price regluated comparable risk companies is identical to the application of the DCF to the Utility Proxy Group The dividend yield is derived by using the 60 day average price and the spot indicated dividend as of March 31, 2021 The dividend yield is then adjusted by 1/2 the average projected growth rate in EPS, which is calculated by averaging the 5 year projected growth in EPS provided by Value Line, www zacks com, Bloomberg Professional Services, and www yahoo com (excluding any negative growth rates) and then adding that growth rate to the adjusted dividend yield

(2) SIRI's DCF results were excluded from the final average and median as they were more than 2 standard deviations above the proxy group's mean

Source of Information
Value Line Investment Survey
www zacks com Downloaded on 03/31/2021
www yahoo com Downloaded on 03/31/2021
Bloomberg Professional Services

Southwestern Electric Power Company
Indicated Common Equity Cost Rate
Through Use of a Risk Premium Model
Using an Adjusted Total Market Approach

Line No.		Proxy Group of Forty-Five Non-Price Regulated Companies
1.	Prospective Yield on Baa Rated Corporate Bonds (1)	4.36 %
2.	Equity Risk Premium (2)	8.11
3.	Risk Premium Derived Common Equity Cost Rate	12.47 %

Notes: (1) Average forecast of Baa2 corporate bonds based upon the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts dated December 1, 2020 and April 1, 2020 (see pages 27-28 of this Schedule). The estimates are detailed below.

Second Quarter 2021	3.90 %
Third Quarter 2021	4.00
Fourth Quarter 2021	4.10
First Quarter 2022	4.20
Second Quarter 2022	4.30
Third Quarter 2022	4.40
2022-2026	4.60
2027-2031	5.40
Average	4.36 %

(2) From page 40 of this Schedule.

Southwestern Electric Power Company
Comparison of Long-Term Issuer Ratings for the
Proxy Group of Forty-Five Non-Price Regulated Companies of Comparable risk to the
Proxy Group of Fourteen Electric Companies

	Moody's Long-Term Issuer Rating March 2021		Standard & Poor's Long-Term Issuer Rating March 2021	
Proxy Group of Forty-Five Non-Price Regulated Companies	Long-Term Issuer Rating	Numerical Weighting (1)	Long-Term Issuer Rating	Numerical Weighting (1)
Abbott Labs	A3	7.0	A	6 0
Analog Devices	Baa1	8.0	BBB	9 0
Assurant Inc	Baa3	10.0	BBB	9 0
ANSYS, Inc.	NA	--	NA	--
Smith (A.O.)	NA	--	NA	--
Brown-Forman 'B'	A1	5.0	A-	7.0
Broadridge Fin'l	Baa1	8.0	BBB+	8 0
Brady Corp.	NA	--	NA	--
Cadence Design Sys	Baa2	9.0	BBB+	8.0
Cerner Corp.	NA	--	NA	--
Chemed Corp.	WR	--	NR	--
Cooper Cos.	WR	--	NR	--
CSW Industrials	NA	--	NA	--
Quest Diagnostics	Baa2	9.0	BBB+	8 0
Dolby Labs	NA	--	NA	--
Lauder (Estee)	A1	5 0	A+	5.0
Exponent, Inc.	NA	--	NA	--
Gentex Corp.	NA	--	NA	--
Hershey Co	A1	5 0	A	6.0
Ingredion Inc	Baa1	8 0	BBB	9.0
Hunt (J.B.)	Baa1	8.0	BBB+	8.0
J&J Snack Foods	NA	--	NA	--
Henry (Jack) & Assoc	NA	--	NA	--
Lennox Int'l	Baa3	10 0	BBB	9 0
MAXIMUS Inc	NA	--	NA	--
Altria Group	A3	7.0	BBB	9.0
MSA Safety	NA	--	NA	--
MSCI Inc	Ba2	12 0	BB+	11 0
Motorola Solutions	Baa3	10 0	BBB-	10 0
Maxim Integrated	Baa1	8 0	BBB+	8 0
Northrop Grumman	Baa2	9.0	BBB+	8.0
PerkinElmer Inc	Baa3	10.0	BBB	9 0
Post Holdings	B2	15.0	B+	14 0
Rollins, Inc.	NA	--	NA	--
Sherwin-Williams	Baa2	9.0	BBB	9 0
Selective Ins Group	Baa2	9.0	BBB	9 0
Sirius XM Holdings	NA	--	BB	12 0
Sensient Techn	WR	--	NR	--
Tetra Tech	NA	--	NA	--
AMERCO	WR	--	NR	--
UniFirst Corp	NA	--	NA	--
VeriSign Inc.	Baa3	10 0	BBB-	10.0
Waters Corp	NA	--	NA	--
Watsco, Inc	NA	--	NA	--
Western Union	Baa2	9 0	BBB	9.0
Average	Baa2	8.7	BBB	8 8

Notes.
(1) From page 23 of this Schedule

Source of Information:
Bloomberg Professional Services

Southwestern Electric Power Company
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for
Proxy Group of Forty-Five Non-Price Regulated Companies of Comparable risk to the
Proxy Group of Fourteen Electric Companies

Line No.	Equity Risk Premium Measure	Proxy Group of Forty-Five Non-Price Regulated Companies
	Ibbotson-Based Equity Risk Premiums:	
1.	Ibbotson Equity Risk Premium (1)	5.78 %
2.	Regression on Ibbotson Risk Premium Data (2)	8.85
3.	Ibbotson Equity Risk Premium based on PRPM (3)	9.74
4.	Equity Risk Premium Based on Value Line Summary and Index (4)	5.03
5	Equity Risk Premium Based on Value Line S&P 500 Companies (5)	10.77
6.	Equity Risk Premium Based on Bloomberg S&P 500 Companies (6)	12.17
7.	Conclusion of Equity Risk Premium	8.72 %
8.	Adjusted Beta (7)	0.93
9.	Forecasted Equity Risk Premium	8.11 %

Notes:
(1) From note 1 of page 26 of this Schedule.
(2) From note 2 of page 26 of this Schedule.
(3) From note 3 of page 26 of this Schedule.
(4) From note 4 of page 26 of this Schedule.
(5) From note 5 of page 26 of this Schedule.
(6) From note 6 of page 26 of this Schedule.
(7) Average of mean and median beta from page 41 of this Schedule.

Sources of Information:
Stocks, Bonds, Bills, and Inflation - 2020 SBBI Yearbook, John Wiley & Sons, Inc.
Value Line Summary and Index
Blue Chip Financial Forecasts, December 1, 2020 and April 1, 2021
Bloomberg Professional Services

Southwestern Electric Power Company
Traditional CAPM and ECAPM Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the Proxy Group of Fourteen Electric Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	
Proxy Group of Forty-Five Non-Price Regulated Companies	Value Line Adjusted Beta	Bloomberg Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)	
Abbott Labs.	0.95	0.86	0.90	9.59 %	2.73 %	11.36 %	11.60 %	11.48 %	
Analog Devices	0.95	1.05	1.00	9.59	2.73	12.32	12.32	12.32	
Assurant Inc.	0.95	0.98	0.97	9.59	2.73	12.03	12.10	12.06	
ANSYS, Inc	0.85	0.97	0.91	9.59	2.73	11.45	11.67	11.56	
Smith (A O)	0.90	1.03	0.96	9.59	2.73	11.93	12.03	11.98	
Brown-Forman 'B'	0.85	0.98	0.92	9.59	2.73	11.55	11.74	11.64	
Broadridge Fin'l	0.85	0.83	0.84	9.59	2.73	10.78	11.17	10.97	
Brady Corp.	1.00	1.05	1.03	9.59	2.73	12.60	12.53	12.57	
Cadence Design Sys	0.90	0.98	0.94	9.59	2.73	11.74	11.88	11.81	
Cerner Corp	0.90	0.89	0.89	9.59	2.73	11.26	11.53	11.39	
Chemed Corp	0.85	0.91	0.88	9.59	2.73	11.17	11.45	11.31	
Cooper Cos	0.95	0.93	0.94	9.59	2.73	11.74	11.88	11.81	
CSW Industrials	0.85	1.03	0.94	9.59	2.73	11.74	11.88	11.81	
Quest Diagnostics	0.85	0.96	0.91	9.59	2.73	11.45	11.67	11.56	
Dolby Labs	0.95	0.95	0.95	9.59	2.73	11.84	11.96	11.90	
Lauder (Estee)	0.95	1.01	0.98	9.59	2.73	12.12	12.17	12.15	
Exponent, Inc	0.90	0.94	0.92	9.59	2.73	11.55	11.74	11.64	
Gentex Corp.	0.95	1.07	1.01	9.59	2.73	12.41	12.39	12.40	
Hershey Co.	0.85	0.83	0.84	9.59	2.73	10.78	11.17	10.97	
Ingredion Inc.	0.90	0.93	0.91	9.59	2.73	11.45	11.67	11.56	
Hunt (J.B)	0.95	0.92	0.94	9.59	2.73	11.74	11.88	11.81	
J&J Snack Foods	0.90	0.77	0.84	9.59	2.73	10.78	11.17	10.97	
Henry (Jack) & Assoc	0.85	0.89	0.87	9.59	2.73	11.07	11.38	11.23	
Lennox Int'l	1.00	1.01	1.01	9.59	2.73	12.41	12.39	12.40	
MAXIMUS Inc.	0.80	0.90	0.85	9.59	2.73	10.88	11.24	11.06	
Altria Group	0.90	0.89	0.89	9.59	2.73	11.26	11.53	11.39	
MSA Safety	1.00	1.00	1.00	9.59	2.73	12.32	12.32	12.32	
MSCI Inc	0.95	0.93	0.94	9.59	2.73	11.74	11.88	11.81	
Motorola Solutions	0.90	0.95	0.92	9.59	2.73	11.55	11.74	11.64	
Maxim Integrated	0.95	1.00	0.97	9.59	2.73	12.03	12.10	12.06	
Northrop Grumman	0.85	0.79	0.82	9.59	2.73	10.59	11.02	10.81	
PerkinElmer Inc	0.95	0.84	0.90	9.59	2.73	11.36	11.60	11.48	
Post Holdings	0.95	0.90	0.92	9.59	2.73	11.55	11.74	11.64	
Rollins, Inc.	0.85	0.69	0.77	9.59	2.73	10.11	10.66	10.39	(4)
Sherwin-Williams	0.90	1.02	0.96	9.59	2.73	11.93	12.03	11.98	
Selective Ins. Group	0.85	0.96	0.91	9.59	2.73	11.45	11.67	11.56	
Sirius XM Holdings	1.00	1.10	1.05	9.59	2.73	12.80	12.68	12.74	
Sensient Techn.	0.90	0.96	0.93	9.59	2.73	11.64	11.81	11.73	
Tetra Tech	0.90	1.05	0.98	9.59	2.73	12.12	12.17	12.15	
AMERCO	0.95	1.06	1.01	9.59	2.73	12.41	12.39	12.40	
UniFirst Corp.	1.00	1.10	1.05	9.59	2.73	12.80	12.68	12.74	
VeriSign Inc	0.95	0.79	0.87	9.59	2.73	11.07	11.38	11.23	
Waters Corp.	0.95	0.85	0.90	9.59	2.73	11.36	11.60	11.48	
Watsco, Inc	0.85	0.80	0.82	9.59	2.73	10.59	11.02	10.81	
Western Union	0.80	1.05	0.92	9.59	2.73	11.55	11.74	11.64	
Mean			0.93			11.64 %	11.81 %	11.73 %	
Median			0.92			11.55 %	11.74 %	11.64 %	
Average of Mean and Median			0.93			11.60 %	11.78 %	11.69 %	

Notes
(1) From note 1 of page 32 of this Schedule
(2) From note 2 of page 32 of this Schedule
(3) Average of CAPM and ECAPM cost rates
(4) ROL's CAPM results were excluded from the final average and median as they were more than 2 standard deviations below the proxy group's mean.

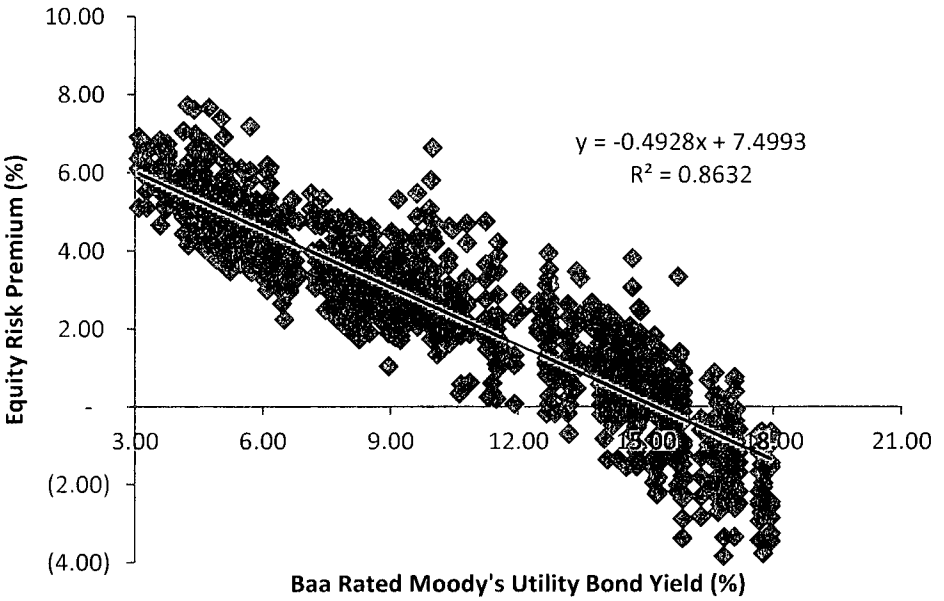
Southwestern Electric Power Company
Calculation of Price Appreciation and Annualized Volatility of the
Combined Electric Proxy Group, Other Utility Indices, and Market Indices since January 31, 2020

Combined Electric Proxy Group	Price Appreciation (1)	Annualized Volatility (2)
ALLETE, Inc.	-19.51%	50.09%
Alliant Energy Corporation	-8.76%	37.14%
Ameren Corporation	-0.84%	41.26%
American Electric Power Company, Inc.	-18.73%	36.75%
Avista Corporation	-6.10%	49.79%
Black Hills Corporation	-19.58%	48.79%
CMS Energy Corporation	-10.64%	37.20%
Consolidated Edison, Inc.	-20.43%	39.21%
Dominion Energy, Inc.	-11.42%	42.85%
DTE Energy Company	0.40%	45.03%
Duke Energy	-1.13%	39.37%
Edison International	-23.45%	43.07%
Entergy Corporation	-24.37%	44.68%
Evergy, Inc.	-17.50%	46.91%
Eversource Energy	-6.33%	43.35%
Fortis Inc	-5.53%	33.15%
Hawaiian Electric Industries, Inc.	-9.16%	45.06%
IDACORP, Inc.	-10.89%	41.03%
MGE Energy, Inc	-10.68%	53.02%
NextEra Energy, Inc.	12.77%	41.18%
NorthWestern Corporation	-15.29%	50.34%
OGE Energy Corporation	-29.42%	42.49%
Otter Tail Corporation	-13.80%	54.43%
Pinnacle West Capital Corporation	-16.73%	42.54%
Portland General Electric Company	-22.81%	47.78%
Public Service Enterprise Group Incorporated	1 71%	39.00%
PPL Corporation	-20.31%	45.00%
Sempra Energy	-17.47%	44.85%
The Southern Company	-11.70%	43.69%
WEC Energy Group	-6.31%	41.03%
Xcel Energy, Inc.	-3.87%	37.85%
Average	-11.87%	43.48%
Dow Jones Utility Average	-6.20%	36.59%
Utilities Select SPDR Fund	-7.16%	36.80%
Dow Jones Industrial Average	16.72%	34.47%
S&P 500	23.17%	32.64%

Notes:
(1) (3/31/2021 price minus 1/31/2020 price) divided by 1/31/2020 price.
(2) Standard deviation of returns over the period multiplied by the square root of 252, or number of trading days in a year.

Source: S&P Market Intelligence, S&P Capital IQ

Southwestern Electric Power Company
Correction to Staff's Conventional Risk-Premium Estimate
Using Moody's Baa Rated Utility Bond Yields



Utility Baa Bond Yield:		4.04	%
Average bond yield over study period:	-	9.52	%
Change in bond yield:		(5.48)	%
Risk Premium/Interest Rate Relationship:	x	(0.49)	
Adjustment to average risk premium:		2.70	%
Average Risk Premium over Study Period:	+	2.81	%
Adjusted Risk Premium:		5.51	%
Utility Baa Bond Yield:	+	4.04	%
Implied Cost of Equity:		**9.55**	**%**

Source of Information: Regulatory Research Associates, Blue Chip Forecsts, Bloomberg Professional

Southwestern Electric Power Company
Correction of Staff's CAPM Results Reflecting a Corrected
Expected Risk-Free Rate, Expected MRP, and use of the ECAPM

Company	Risk-Free Rate (1)	Beta	Risk Premium (2)	CAPM	ECAPM	AVERAGE
Staff Proxy Group						
Alliant Energy	2.48%	0.85	8.59%	9.78%	10.10%	9.94%
Ameren Corporation	2.48%	0.85	8.59%	9.78%	10.10%	9.94%
Avista Corporation	2.48%	0.95	8.59%	10.64%	10.75%	10.69%
Black Hills Corporation	2.48%	1.00	8.59%	11.07%	11.07%	11.07%
Consolidated Edison, Inc.	2.48%	0.75	8.59%	8.92%	9.46%	9.19%
DTE Energy	2.48%	0.95	8.59%	10.64%	10.75%	10.69%
Duke Energy Corporation	2.48%	0.85	8.59%	9.78%	10.10%	9.94%
Edison International	2.48%	0.95	8.59%	10.64%	10.75%	10.69%
Evergy, Inc.	2.48%	1.00	8.59%	11.07%	11.07%	11.07%
Eversource Energy	2.48%	0.90	8.59%	10.21%	10.42%	10.32%
Fortis Inc.	2.48%	0.80	8.59%	9.35%	9.78%	9.57%
NextEra Energy, Inc.	2.48%	0.90	8.59%	10.21%	10.42%	10.32%
NorthWestern Corporation	2.48%	0.95	8.59%	10.64%	10.75%	10.69%
OGE Energy	2.48%	1.10	8.59%	11.93%	11.71%	11.82%
Otter Tail Corporation	2.48%	0.85	8.59%	9.78%	10.10%	9.94%
Pinnacle West	2.48%	0.90	8.59%	10.21%	10.42%	10.32%
Portland General	2.48%	0.85	8.59%	9.78%	10.10%	9.94%
Public Service Enterprise Group Inc.	2.48%	0.90	8.59%	10.21%	10.42%	10.32%
WEC Energy	2.48%	0.80	8.59%	9.35%	9.78%	9.57%
Xcel Energy	2.48%	0.80	8.59%	9.35%	9.78%	9.57%
Mean				10.17%	10.39%	**10.28%**
Median				10.21%	10.42%	**10.32%**

Notes on page 2 of this Schedule.

Southwestern Electric Power Company
Notes to Accompany the Correction of Staff's CAPM and ECAPM

Notes:

(1) For reasons explained in the direct testimony, the appropriate risk-free rate for cost of capital purposes is the average forecast of 30 year Treasury Bonds per the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts. (See page 3 of this Schedule and page 28 of Schedule DWD-1R). The projection of the risk-free

First Quarter 2021	2.00 %
Second Quarter 2021	2.10
Third Quarter 2021	2.20
Fourth Quarter 2021	2.30
First Quarter 2022	2.40
Second Quarter 2022	2.40
2022-2026	2.80
2027-2031	3.60
	2.48 %

(2) The market risk premium (MRP) is derived by using four different measures as illustrated below:

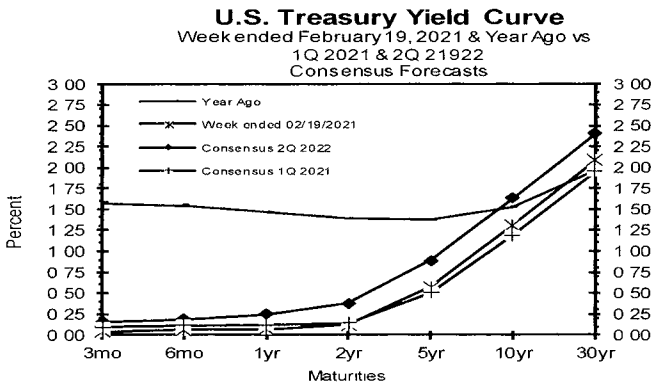
Measure 1: Ibbotson Arithmetic Mean MRP (1926-2019)	7.01 %
Measure 2: Application of a Regression Analysis to Ibbotson Historical Data	9.81 %
Measure 3: Value Line Projected MRP (Thirteen weeks ending 3/19/2021)	
Total projected return on the market 3-5 years hence*:	8.50 %
Projected Risk-Free Rate (see note 1):	2.48
MRP based on Value Line Summary & Index:	6.02 %
Measure 4: Value Line Projected Return on the Market based on the S&P 500	
Total return on the Market based on the S&P 500:	14.01 %
Projected Risk-Free Rate (see note 1):	2.48
MRP based on Value Line data	11.53 %
Average:	8.59 %

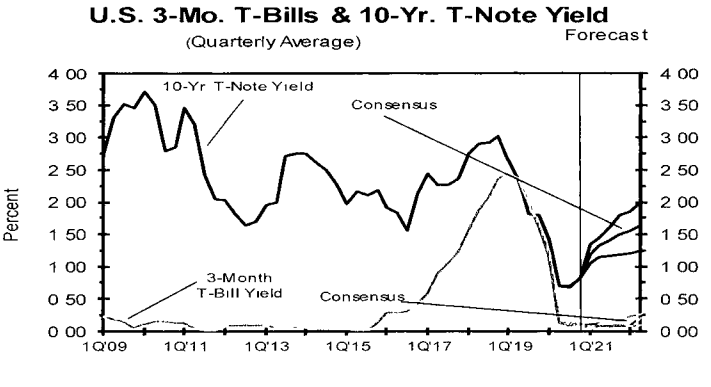
Sources of Information:
Attachment MF-8
Blue Chip Financial Forecasts, March 1, 2021 and December 1, 2020
Stocks, Bonds, Bills, and Inflation - 2020 SBBI Yearbook, John Wiley & Sons, Inc.

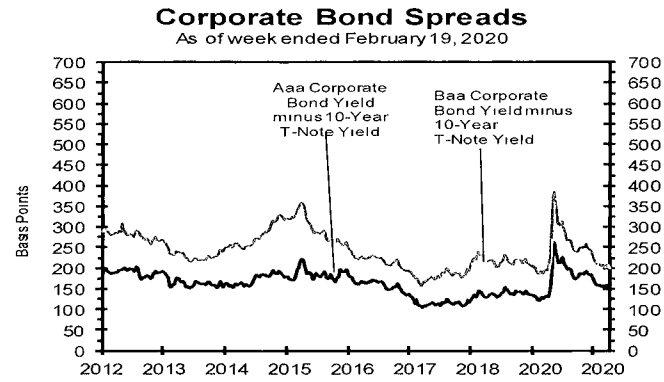
Consensus Forecasts of U.S. Interest Rates and Key Assumptions

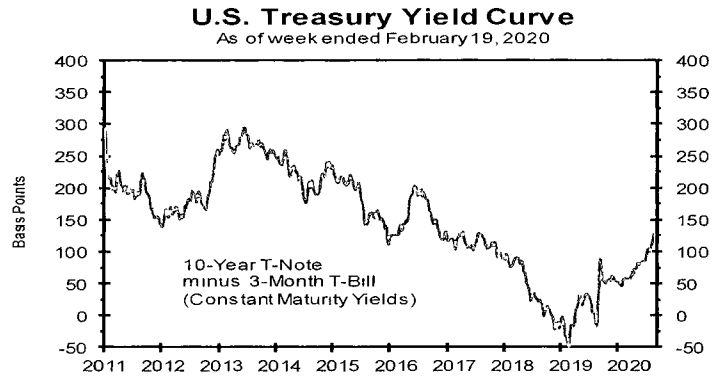
	History								Consensus Forecasts-Quarterly Avg.					
	Average For Week Ending				Average For Month			*Latest Qtr*	1Q	2Q	3Q	4Q	1Q	2Q
Interest Rates	Feb 19	Feb 12	Feb 5	Jan 29	Jan	Dec	Nov	4Q 2020	2021	2021	2021	2021	2022	2022
Federal Funds Rate	0.08	0.08	0.07	0.08	0.09	0.09	0.09	0 09	0.1	0.1	0.1	0.1	0.1	0.1
Prime Rate	3.25	3.25	3.25	3.25	3.25	3 25	3.25	3.25	3.3	3.3	3.3	3.3	3.3	3.3
LIBOR, 3-mo.	0.18	0.20	0.19	0.21	0 22	0.23	0 22	0.22	0.2	0.2	0.3	0.3	0.3	0.3
Commercial Paper, 1-mo	0 07	0.06	0.07	0.07	0.08	0.09	0 09	0.09	0.1	0.1	0.2	0.2	0.2	0.2
Treasury bill, 3-mo.	0.04	0.05	0.05	0.07	0 08	0.09	0 09	0.09	0.1	0.1	0.1	0.1	0.1	0.2
Treasury bill, 6-mo.	0.06	0.06	0.07	0.08	0.09	0.09	0.10	0.10	0.1	0.1	0.1	0.2	0.2	0.2
Treasury bill, 1 yr.	0.07	0 07	0.07	0.09	0.10	0.10	0.12	0.12	0.1	0.1	0.2	0.2	0.2	0.3
Treasury note, 2 yr.	0.12	0 11	0.11	0.12	0.13	0.14	0.17	0.15	0.1	0.2	0.2	0.3	0.3	0.4
Treasury note, 5 yr.	0.57	0 48	0.45	0.42	0.45	0.39	0.39	0.37	0.5	0.6	0.7	0.8	0.8	0.9
Treasury note, 10 yr.	1.31	1 18	1.14	1.06	1.08	0 93	0.87	0 86	1.2	1.3	1.4	1.5	1.6	1.6
Treasury note, 30 yr.	2.09	1.96	1.91	1.81	1.82	1.67	1 62	1 62	2.0	2.1	2.2	2.3	2.4	2.4
Corporate Aaa bond	2 86	2 77	2.74	2.64	2.64	2.52	2 58	2.58	2.6	2.8	2.9	3.0	3.0	3.1
Corporate Baa bond	3.31	3.22	3 21	3.13	3.14	3.03	3.13	3.14	3.5	3.7	3.8	3.9	4.0	4.0
State & Local bonds	2.60	2.58	2.62	2.61	2.65	2.70	2.82	2 82	2.6	2.7	2.8	2.9	3.0	3.0
Home mortgage rate	2 81	2.73	2.73	2.73	2.74	2.68	2.77	2 76	2.9	3.0	3.1	3.2	3.3	3.4
	History								Consensus Forecasts-Quarterly					
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q
Key Assumptions	2019	2019	2019	2019	2020	2020	2020	2020	2021	2021	2021	2021	2022	2022
Fed's AFE $ Index	109 5	110.4	110.6	110.5	111.4	112.4	107.3	105.2	103.6	103.2	103.1	103.2	102.9	103.0
Real GDP	2 9	1.5	2.6	2.4	-5.0	-31.4	33 4	4.1	4.3	6.8	6.3	4.6	3.3	2.9
GDP Price Index	1.2	2.5	1.5	1.4	1.4	-1.8	3.5	2 1	2.2	1.8	1.9	1.9	1.9	2.0
Consumer Price Index	0.7	3.5	1.3	2.6	1.0	-3.1	4.7	2 4	2.8	2.0	2.0	2.1	2.1	2.1
PCE Price Index	0.6	2.5	1.4	1.5	1 3	-1.6	3.7	1.6	2.7	1.9	1.9	1.9	1.9	2.0

Forecasts for interest rates and the Federal Reserve's Major Currency Index represent averages for the quarter Forecasts for Real GDP, GDP Price Index and Consumer Price Index are seasonally-adjusted annual rates of change (saar) Individual panel members' forecasts are on pages 4 through 9 Historical data Treasury rates from the Federal Reserve Board's H 15, AAA-AA and A-BBB corporate bond yields from Bank of America-Merrill Lynch and are 15+ years, yield to maturity, State and local bond yields from Bank of America-Merrill Lynch, A-rated, yield to maturity, Mortgage rates from Freddie Mac, 30-year, fixed, LIBOR quotes from Intercontinental Exchange All interest rate data are sourced from Haver Analytics Historical data for Fed's Major Currency Index are from FRSR H 10 Historical data for Real GDP and GDP Chained Price Index are from the Bureau of Economic Analysis (BEA) Consumer Price Index (CPI) history is from the Department of Labor's Bureau of Labor Statistics (BLS)









Southwestern Electric Power Company
Portfolio Ranks by Size and Risk Premiums over CAPM Results
as Compiled by Duff and Phelps 2020 Guide to Cost of Capital

Portfolio Rank by Size	B-1 Average Market Val (in $millions)	RP	B-2 Average Book Val (in $millions)	RP	B-3 5-yr Net Income (in $millions)	RP	B-4 Invested Capital (in $millions)	RP	B-5 Total Assets (in $millions)	RP	B-6 5-yr EBITDA (in $millions)	RP	B-7 Sales (in $millions)	RP	B-8 Average Number of Employees	RP
1	$185,926 and Up	-0 84%	$41,558 and Up	1 38%	$6,822 and Up	1 01%	$229,194 and Up	-0 32%	$114,076 and Up	1 09%	$14,974 and Up	1 13%	$90,302 and Up	1 29%	229,840 and Up	0 89%
2	$56,959 - $185 926	0 49%	$15,115 - $41,558	2 02%	$2,337 - $6,822	1 82%	$78,039 - $229,194	0 75%	$50,546 - $114,076	1 72%	$5,656 - $14,974	1 88%	$32,344 - $90,302	2 05%	89,648 - 229 840	1 76%
3	$35,409 - $56,959	0 98%	$9,686- $15,115	2 29%	$1,439 - $2,337	2 13%	$47,251 - $78,039	1 24%	$33,793 - $50,546	1 98%	$3,665 - $5,656	2 18%	$20,065 $32,344	2 44%	60,958 - 89,648	2 10%
4	$24,895 - $35,409	1 34%	$6,887 $9,686	2 46%	$970 - $1,439	2 41%	$33,818 - $47,251	1 55%	$23,107 - $33,793	2 22%	$2,644 - $3,665	2 41%	$15,623 $20,065	2 61%	45,827 - 60,958	2 32%
5	$18,621 - $24,895	1 61%	$5 248 - $6,887	2 64%	$753 $970	2 60%	$25,668 $33,818	1 79%	$16,907 - $23,107	2 45%	$1,996 - $2,644	2 59%	$11,773 $15,263	2 78%	35,414 - 45,827	2 52%
6	$14,297 - $18,621	1 87%	$4 392 - $5,248	2 74%	$615 $753	2 71%	$19,728 - $25,668	2 01%	$13,508 $16,907	2 59%	$1,559 - $1,996	2 76%	$9,610 - $11,773	2 94%	28,157 - 35,414	2 70%
7	$11,416 - $14,297	2 10%	$3,712- $4,392	2 83%	$483 - $615	2 86%	$15,391 - $19,728	2 23%	$10,972 - $13,508	2 73%	$1,270 - $1,559	2 89%	$8,275 - $9,610	3 03%	23,063 - 28,157	2 86%
8	$9,274 $11,416	2 29%	$3,122 - $3,712	2 91%	$388 $483	3 01%	$12,436 - $15,391	2 42%	$9,164 $10,972	2 85%	$1,044 - $1,270	3 01%	$7,157 - $8,275	3 13%	18,965 - 23,063	3 00%
9	$7,759 - $9,274	2 48%	$2,596 $3,122	3 01%	$328 - $388	3 12%	$10,361 - $12,436	2 58%	$7,673 - $9,164	2 95%	$852 - $1,044	3 14%	$6,098 $7,157	3 22%	15,846 18,965	3 15%
10	$6,635 - $7,759	2 61%	$2,201 - $2,596	3 11%	$289 $328	3 22%	$8,701 - $10,361	2 73%	$6,462 - $7,673	3 07%	$721 - $852	3 27%	$4,991 $6,098	3 33%	13,921 - 15,846	3 26%
11	$5,502 - $6,635	2 77%	$1,911 - $2,201	3 18%	$256 $289	3 28%	$7,448 - $8,701	2 88%	$5,629 - $6,462	3 17%	$636 - $721	3 35%	$4 127 - $4 991	3 47%	12,271 - 13,921	3 35%
12	$4,624 - $5,502	2 96%	$1,687 - $1,911	3 25%	$218 $256	3 37%	$6,594 - $7,448	2 99%	$4,934 - $5,629	3 25%	$555 - $636	3 43%	$3,550 - $4,127	3 57%	10,760 - 12,271	3 45%
13	$3,983 - $4,624	3 09%	$1,499 - $1,687	3 31%	$183 - $218	3 48%	$5,781 - $6,594	3 08%	$4,236 - $4,934	3 33%	$485 - $555	3 52%	$3,093 - $3,550	3 66%	9,489 - 10,760	3 54%
14	$3,413 - $3,983	3 23%	$1,312 - $1,499	3 38%	$155 - $183	3 58%	$4,947 - $5,781	3 21%	$3,576 $4,236	3 44%	$427 - $485	3 60%	$2,723 - $3,093	3 75%	8,303 - 9,489	3 64%
15	$2,975 - $3,413	3 38%	$1,143 - $1,312	3 45%	$132 - $155	3 69%	$4,258 - $4,947	3 34%	$3,062 - $3,576	3 54%	$374 - $427	3 68%	$2,404 - $2,723	3 82%	7,138 - 8,303	3 74%
16	$2,644 - $2,975	3 48%	$996 - $1,143	3 52%	$111 - $132	3 78%	$3,684 - $4,258	3 46%	$2,642 - $3,062	3 63%	$323 - $374	3 76%	$2 137 - $2 404	3 90%	6,060 - 7,138	3 86%
17	$2,313 $2,644	3 59%	$857 - $996	3 59%	$93 $111	3 90%	$3,188 - $3,684	3 59%	$2,249 - $2,642	3 73%	$274 - $323	3 86%	$1,916 - $2,137	3 97%	5,130 - 6,060	3 99%
18	$1 932 - $2,313	3 73%	$739 - $857	3 68%	$79 - $93	4 00%	$2,722 - $3,188	3 70%	$1,898 $2,249	3 83%	$227 - $274	3 97%	$1,692 - $1,916	4 04%	4,330 - 5,130	4 11%
19	$1,578 - $1,932	3 93%	$649 - $739	3 75%	$67 - $79	4 10%	$2,229 $2,722	3 86%	$1,591 - $1,898	3 94%	$187 - $227	4 10%	$1,446 - $1,692	4 13%	3,605 - 4,330	4 24%
20	$1,320 - $1,578	4 11%	$562 - $649	3 82%	$55 - $67	4 21%	$1,790 - $2,229	4 04%	$1,310 - $1,591	4 05%	$155 - $187	4 22%	$1,171 - $1,446	4 24%	2,894 - 3,605	4 39%
21	$1,080 - $1,320	4 26%	$464 - $562	3 90%	$44 - $55	4 33%	$1,457 - $1,790	4 23%	$1,074 - $1,310	4 18%	$127 - $155	4 33%	$926 - $1,171	4 40%	2,247- 2,894	4 57%
22	$835 - $1,080	4 48%	$373 - $464	4 02%	$34 - $44	4 49%	$1,169 $1,457	4 39%	$845 - $1,074	4 30%	$98 - $127	4 47%	$722 - $926	4 54%	1,687 - 2,247	4 77%
23	$591 - $835	4 74%	$292 $373	4 13%	$24 $34	4 67%	$825 - $1,169	4 60%	$594 $845	4 49%	$70 - $98	4 66%	$525 $722	4 72%	1,203 - 1,687	5 01%
24	$306 - $591	5 15%	$168 - $292	4 28%	$12 - $24	4 95%	$412 $825	5 01%	$320 - $594	4 76%	$38 - $70	4 90%	$284 - $525	4 95%	649 - 1,203	5 28%
25	Up to $306	6 20%	Up to $168	4 82%	Up to $12	5 69%	Up to $412	5 99%	Up to $320	5 38%	Up to $38	5 60%	Up to $284	5 67%	Up to 649	6 14%

	B-1 Value	Portfolio Ranking	B-2 Value	Portfolio Ranking		B-3 Value	Portfolio Ranking	B-4 Value	Portfolio Ranking	B-5 Value	Portfolio Ranking		B-6 Value	Portfolio Ranking	B-7 Value	Portfolio Ranking	B-8 Value	Portfolio Ranking
Mr Filarowicz's Proxy Group of Electric Companies	$ 24,537	5	$ 11,565,931	3		$ 946	5	$ 15,316	8	$ 39,410	3		$ 2 743	4	$ 7,888	8	8,397	14
Mr Gorman's Proxy Group of Electric Companies	$ 17,089	6	$ 8,812,925	4		$ 628	6	$ 12,643	8	$ 33,031	4		$ 2,171	5	$ 6,464	9	7,556	15
Dr Woolridge's Proxy Group of Electric Companies	$ 26,731	4	$ 11,792,953	3		$ 977	4	$ 17,089	7	$ 43,175	3		$ 2,945	4	$ 8,455	7	9,361	14
Southwestern Electric Power Company	$ 1,920	19	$ 417	22	(1)	$ 163 52	14	$ 2 503	19	$ 2,026	18	(2)	$ 545	13	$ 1,772	18	1,469	23
Indicated Risk Premium - Mr Filarowicz's Proxy Group	2 32%		1 73%			0 98%		1 44%		1 85%			1 11%		0 91%		1 37%	
Indicated Risk Premium - Mr Gorman's Proxy Group	2 06%		1 56%			0 87%		1 44%		1 61%			0 93%		0 82%		1 27%	
Indicated Risk Premium Dr Wooldridge's Proxy Group	2 59%		1 73%			1 17%		1 63%		1 85%			1 11%		1 01%		1 37%	

Notes
(1) SWEPCO-TX Book Value Estimated by multiplying (SWEPCO TX Rate Base / SWEPCO Plant Property and Equipment) by SWEPCO Book Value
(2) SWEPCO-TX Market Value of Debt Estimated by multiplying (SWEPCO TX Rate Base / SWEPCO Plant Property and Equipment) by SWEPCO Long Term Debt

Sources of Information
Duff & Phelps 2020 Cost of Capital Navigator
SNL Financial
Company Annual Reports
Company Form 10-K

Schedule DWD-5R
Page 1 of 1

Southwestern Electric Power Company
Retention Ratio Regression Analysis

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0 4101
R Square	0 1682
Adjusted R Square	0 1642
Standard Error	0 1361
Observations	213

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.7907	0 7907	42 6630	0.0000
Residual	211	3 9106	0 0185		
Total	212	4 7013			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0 1006	0.0124	8 0902	0 0000	0.0761	0.1251
X Variable 1	-0.1790	0.0274	-6 5317	0 0000	-0.2330	-0 1250

Date	Ticker	Payout Ratio	Retention Ratio	5-year Fwd EPS Growth
2004	ALE	22 22%	77 78%	13 03%
2005	ALE	50 40%	49 60%	-0 53%
2006	ALE	52 35%	47 65%	1 33%
2007	ALE	53 25%	46 75%	-1 44%
2008	ALE	60 99%	39 01%	0 64%
2009	ALE	93 12%	6 88%	9 29%
2010	ALE	80.37%	19 63%	9 42%
2011	ALE	67 17%	32 83%	3 80%
2012	ALE	71 32%	28 68%	4 27%
2013	ALE	72 24%	27 76%	5 48%
2014	ALE	67 59%	32 41%	3 13%
2015	ALE	59 76%	40 24%	-0 06%
1996	LNT	86.78%	13 22%	6 92%
1997	LNT	105 26%	-5 26%	-0.07%
1998	LNT	158 73%	-58 73%	13 28%
1999	LNT	91 32%	8.68%	2 08%
2000	LNT	80.97%	19 03%	3.42%
2001	LNT	82 64%	17 36%	2 46%
2002	LNT	169.49%	-69.49%	18 83%
2003	LNT	63 69%	36 31%	11 10%
2004	LNT	55 14%	44 86%	2 50%
2005	LNT	47 51%	52 49%	7 55%
2006	LNT	55 83%	44 17%	8 91%
2007	LNT	47 21%	52 79%	4 97%
2008	LNT	55 12%	44 88%	7 73%
2009	LNT	78 95%	21 05%	13.86%
2010	LNT	57 45%	42.55%	4 34%
2011	LNT	61 82%	38 18%	3 86%
2012	LNT	59 02%	40 98%	5 80%
2013	LNT	56 97%	43 03%	6 17%
2014	LNT	58.62%	41 38%	6 36%
2015	LNT	65 09%	34 91%	8 14%
1996	AEE	87 76%	12 24%	4 29%
1997	AEE	104.10%	-4 10%	2 83%
1998	AEE	90 07%	9 93%	3 32%
1999	AEE	90 39%	9 61%	1.35%

Date	Ticker	Payout Ratio	Retention Ratio	5-year Fwd EPS Growth
2000	AEE	76 28%	23 72%	-0 15%
2001	AEE	74 49%	25 51%	-3 63%
2002	AEE	95 49%	4 51%	3 17%
2003	AEE	80 89%	19 11%	-1 11%
2004	AEE	90 07%	9 93%	0 24%
2005	AEE	81 15%	18.85%	-2 03%
2006	AEE	95 49%	4 51%	-1 20%
2007	AEE	85 23%	14 77%	-4 09%
2008	AEE	88 19%	11 81%	-5 99%
2009	AEE	55 40%	44 60%	-2 44%
2010	AEE	55 60%	44 40%	-2 53%
2011	AEE	63 16%	36 84%	2 15%
2012	AEE	66 39%	33 61%	3 31%
2013	AEE	76 19%	23 81%	9.85%
2014	AEE	67 08%	32 92%	7 18%
2015	AEE	69 75%	30 25%	8 24%
2007	DUK	71.67%	28 33%	1 45%
2008	DUK	89 11%	10 89%	6 07%
2009	DUK	83 19%	16 81%	4 45%
2010	DUK	72 39%	27 61%	0 58%
2011	DUK	71 74%	28.26%	-1 92%
2012	DUK	81 67%	18 33%	2 91%
2013	DUK	77 64%	22 36%	1 03%
2014	DUK	76 27%	23 73%	4 83%
2015	DUK	79 02%	20.98%	0 95%
2004	EIX	115 94%	-15 94%	76.47%
2005	EIX	30 54%	69 46%	0 34%
2006	EIX	33 54%	66 46%	-0 02%
2007	EIX	35 54%	64.46%	7 91%
2008	EIX	33 42%	66 58%	2 36%
2009	EIX	38 58%	61 42%	7 66%
2010	EIX	37 91%	62 09%	6 15%
2011	EIX	39 94%	60.06%	5 86%
2012	EIX	28 79%	71 21%	0 58%
2013	EIX	36 24%	63 76%	-21 63%
2014	EIX	34 18%	65 82%	-107.71%
2015	EIX	41 69%	58 31%	-118 34%
1997	ETR	80 00%	20 00%	11 04%
1998	ETR	67 57%	32 43%	11 36%
1999	ETR	53.33%	46 67%	12 39%
2000	ETR	41 08%	58 92%	8 38%
2001	ETR	41 56%	58 44%	12 01%
2002	ETR	36 41%	63 59%	9 01%
2003	ETR	43 36%	56 64%	11 09%
2004	ETR	48 09%	51 91%	10 12%
2005	ETR	49 09%	50 91%	8 87%
2006	ETR	40 30%	59 70%	7 18%
2007	ETR	46 07%	53 93%	2.23%
2008	ETR	48 39%	51 61%	-3 44%
2009	ETR	47.62%	52 38%	-0 49%
2010	ETR	48 65%	51 35%	-1 50%
2011	ETR	43 97%	56 03%	-0 49%
2012	ETR	55 15%	44 85%	-1 35%
2013	ETR	66.94%	33 06%	4 83%
2014	ETR	57 54%	42 46%	3 00%
2015	ETR	57 49%	42 51%	4.76%
1996	IDA	84.16%	15 84%	9.88%
1997	IDA	80 17%	19 83%	-1 38%
1998	IDA	78 48%	21.52%	-10 03%
1999	IDA	76 54%	23 46%	9.04%

Date	Ticker	Payout Ratio	Retention Ratio	5-year Fwd EPS Growth
2000	IDA	53 14%	46 86%	-1 34%
2001	IDA	55 52%	44 48%	6 37%
2002	IDA	114 11%	-14 11%	12 47%
2003	IDA	177 08%	-77 08%	24 13%
2004	IDA	63 16%	36 84%	8 77%
2005	IDA	68 57%	31 43%	12.70%
2006	IDA	51 06%	48 94%	8 62%
2007	IDA	64 52%	35 48%	12 85%
2008	IDA	55.05%	44 95%	11 01%
2009	IDA	45 45%	54 55%	7 94%
2010	IDA	40.68%	59.32%	5 70%
2011	IDA	35 71%	64 29%	3 28%
2012	IDA	40 65%	59 35%	4 59%
2013	IDA	43 13%	56 87%	4 32%
2014	IDA	45 71%	54 29%	3 70%
2015	IDA	49 61%	50 39%	3 77%
2005	NWE	58 48%	41 52%	5 90%
2006	NWE	94 66%	5 34%	14 23%
2007	NWE	88 89%	11.11%	10 11%
2008	NWE	74.58%	25 42%	7 29%
2009	NWE	66.34%	33 66%	8 78%
2010	NWE	63 55%	36 45%	6 99%
2011	NWE	56.92%	43 08%	6 72%
2012	NWE	65 49%	34 51%	8 56%
2013	NWE	61 79%	38 21%	7 15%
2014	NWE	53.51%	46.49%	3 61%
2015	NWE	66 21%	33.79%	2 06%
1996	OGE	82 72%	17 28%	-2 52%
1997	OGE	82.72%	17 28%	-0 37%
1998	OGE	65 69%	34 31%	-1 39%
1999	OGE	69 07%	30 93%	0 05%
2000	OGE	70.53%	29.47%	1 14%
2001	OGE	103 08%	-3 08%	14 19%
2002	OGE	93 06%	6 94%	13 50%
2003	OGE	77 01%	22 99%	8 28%
2004	OGE	75.28%	24.72%	9.10%
2005	OGE	72 83%	27 17%	10 98%
2006	OGE	54 47%	45 53%	7 31%
2007	OGE	51.52%	48.48%	6 54%
2008	OGE	56 00%	44 00%	9 27%
2009	OGE	53 38%	46 62%	8 41%
2010	OGE	48 67%	51 33%	2 92%
2011	OGE	43 93%	56 07%	-0 15%
2012	OGE	44.69%	55 31%	1 88%
2013	OGE	43.81%	56 19%	2 29%
2014	OGE	47 98%	52 02%	3 01%
2015	OGE	62 13%	37 87%	4 51%
1996	OTTR	72.58%	27 42%	6 36%
1997	OTTR	72 09%	27 91%	6 86%
1998	OTTR	74 42%	25 58%	3.73%
1999	OTTR	68 28%	31 72%	1 12%
2000	OTTR	63.75%	36.25%	2 78%
2001	OTTR	61 90%	38 10%	0 77%
2002	OTTR	59 22%	40.78%	0.53%
2003	OTTR	71 52%	28 48%	-4 10%
2004	OTTR	73.33%	26.67%	-10 94%
2005	OTTR	62 92%	37 08%	-23.97%
2006	OTTR	68 05%	31.95%	-19.27%
2007	OTTR	65 73%	34 27%	6 33%
2008	OTTR	109 17%	-9 17%	20 18%

Date	Ticker	Payout Ratio	Retention Ratio	5-year Fwd EPS Growth
2009	OTTR	167 61%	-67 61%	29 78%
2010	OTTR	313 16%	-213 16%	39 20%
2011	OTTR	264 44%	-164 44%	36.03%
2012	OTTR	113 33%	-13 33%	12 61%
2013	OTTR	86 86%	13 14%	8 67%
2014	OTTR	78 06%	21 94%	7 11%
2015	OTTR	78 85%	21 15%	8 55%
1996	PNW	41 70%	58 30%	8 36%
1997	PNW	40 94%	59 06%	-0 24%
1998	PNW	43 16%	56 84%	-0 97%
1999	PNW	41 82%	58 18%	-2 81%
2000	PNW	42.69%	57 31%	-6 52%
2001	PNW	41 58%	58 42%	-0 18%
2002	PNW	64 43%	35 57%	4 74%
2003	PNW	68.65%	31 35%	-0 86%
2004	PNW	70.93%	29 07%	-0.01%
2005	PNW	86 16%	13 84%	9 88%
2006	PNW	64 04%	35 96%	0 99%
2007	PNW	70 95%	29 05%	5 73%
2008	PNW	99.06%	0.94%	12 32%
2009	PNW	92 92%	7 08%	10 56%
2010	PNW	68.18%	31 82%	5 20%
2011	PNW	70 23%	29 77%	5 94%
2012	PNW	76 29%	23 71%	4.96%
2013	PNW	60 93%	39 07%	4 54%
2014	PNW	65 08%	34 92%	5 99%
2015	PNW	62 24%	37 76%	5 48%
2006	POR	59 65%	40 35%	20 49%
2007	POR	39 91%	60 09%	-1 20%
2008	POR	69 78%	30 22%	5 80%
2009	POR	77 10%	22 90%	11 58%
2010	POR	62.65%	37 35%	4 95%
2011	POR	54 36%	45 64%	2 63%
2012	POR	57.75%	42 25%	4.66%
2013	POR	62 15%	37.85%	6 43%
2014	POR	51.38%	48 62%	1 96%
2015	POR	57 84%	42 16%	-3 78%
1996	XEL	71 73%	28 27%	6 01%
1997	XEL	86 96%	13 04%	-7 15%
1998	XEL	77 72%	22 28%	28 57%
1999	XEL	101 40%	-1 40%	33 67%
2000	XEL	92 50%	7 50%	30.19%
2001	XEL	66 08%	33 92%	24 32%
2002	XEL	269 05%	-169 05%	40 62%
2003	XEL	60.98%	39.02%	3 68%
2004	XEL	63 78%	36 22%	3 44%
2005	XEL	70 83%	29 17%	5 48%
2006	XEL	65 19%	34 81%	5 03%
2007	XEL	67 41%	32 59%	6 54%
2008	XEL	64 38%	35 62%	5 56%
2009	XEL	65 10%	34 90%	6 41%
2010	XEL	64 10%	35 90%	6 16%
2011	XEL	59 88%	40 12%	5.15%
2012	XEL	57 84%	42 16%	4 46%
2013	XEL	58 12%	41 88%	5 29%
2014	XEL	59 11%	40 89%	5 41%
2015	XEL	60.95%	39 05%	5 93%

Retention Ratio Regression Analysis

Company	Ticker		1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
ALLETE Inc	ALE	Earnings Per Share	N/A	N/A	N/A	N A	N/A	N A	N/A	N/A	1 35	2 48	2 77	3 08	2 82	1 89	2 19	2 65	2 58	2 63	2 90	3 38	3 14	3 13	3 38	3 33	3 35
		Dividends Per Share	N A	N A	N/A	N/A	N/A	N A	N/A	N/A	0 30	1 25	1 45	1 64	1 72	1 76	1 76	1 78	1 84	1 90	1 96	2 02	2 08	2 14	2 24	2 35	2 47
		Payout Ratio	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22 22%	50 40%	52 35%	53 25%	60 99%	93 12%	80 37%	67 17%	71 32%	72 24%	67 59%	59 76%	66 24%	68 37%	66 27%	70 57%	73 73%
		Annual Earnings Growth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	83 70%	11 69%	11 19%	8 44%	-32 98%	15 87%	21 00%	-2 64%	1 94%	10 27%	16 55%	-7 10%	-0 32%	7 99%	1 48%	0 60%
		5yr Avg Fwd EPS Growth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13 03%	-0 53%	1 33%	-1 44%	0 64%	9 29%	9 42%	3 80%	4 27%	5 48%	3 13%	-0 06%	N/A	N/A	N/A	N/A	N/A
Alliant Energy Corporation	LNT	Earnings Per Share	1 14	0 95	0 63	1 10	1 24	1 21	0 59	0 79	0 93	1 11	1 03	1 35	1 27	0 95	1 38	1 38	1 53	1 65	1 74	1 69	1 65	1 99	2 19	2 33	2 47
		Dividends Per Share	0 99	1 00	1 00	1 00	1 00	1 00	1 00	0 50	0 51	0 53	0 58	0 64	0 70	0 75	0 79	0 85	0 90	0 94	1 02	1 10	1 18	1 26	1 34	1 42	1 52
		Payout Ratio	86 78%	105 26%	158 73%	91 32%	80 97%	82 64%	169 49%	63 69%	55 14%	47 51%	55 83%	47 21%	55 12%	78 95%	57 45%	61 82%	59 02%	56 97%	58 62%	65 09%	71 52%	63 32%	61 19%	60 94%	61 54%
		Annual Earnings Growth	N/A	-16 30%	-33 68%	73 81%	12 79%	-2 02%	-51 24%	33 05%	17 83%	19 46%	-6 78%	30 58%	5 58%	-25 20%	44 74%	0 00%	10 91%	8 20%	5 45%	-2 87%	-2 37%	20 61%	10 05%	6 39%	6 01%
		5yr Avg Fwd EPS Growth	6 92%	-0 07%	13 28%	2 08%	3 42%	2 46%	18 83%	11 10%	2 50%	7 55%	8 91%	4 97%	7 73%	13 86%	4 34%	3 86%	5 80%	6 17%	6 35%	8 14%	N/A	N/A	N/A	N/A	N/A
Ameren Corporation	AEE	Earnings Per Share	2 86	2 44	2 82	2 81	3 33	3 41	2 86	3 14	2 82	3 13	2 66	2 98	2 88	2 78	2 77	2 47	2 41	2 10	2 40	2 38	2 68	2 77	3 32	3 35	3 50
		Dividends Per Share	2 51	2 54	2 54	2 54	2 54	2 54	2 54	2 54	2 54	2 54	2 54	2 54	2 54	1 54	1 54	1 56	1 60	1 60	1 61	1 66	1 72	1 78	1 85	1 92	2 00
		Payout Ratio	87 76%	104 10%	90 07%	90 39%	76 28%	74 49%	95 49%	80 89%	90 07%	81 15%	95 49%	85 23%	88 19%	55 40%	55 60%	63 16%	66 39%	76 19%	67 08%	69 75%	64 18%	64 26%	55 72%	57 31%	57 14%
		Annual Earnings Growth	N/A	-14 69%	15 57%	-0 35%	18 51%	2 40%	-21 99%	18 05%	-10 19%	10 99%	-15 02%	12 03%	-3 36%	-3 47%	-0 36%	-10 83%	2 43%	-12 86%	14 29%	-0 83%	12 61%	3 36%	19 86%	0 90%	4 48%
		5yr Avg Fwd EPS Growth	4 29%	2 83%	3 32%	1 35%	-0 15%	-3 63%	3 17%	-1 11%	0 24%	-2 03%	-1 20%	-4 09%	-5 99%	-2 44%	-2 53%	2 15%	3 31%	9 85%	7 18%	8 24%	N A	N/A	N/A	N/A	N/A
Duke Energy Corporation	DUK	Earnings Per Share	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2 76	3 6	3 03	3 39	4 02	4 14	3 71	3 98	4 13	4 1	3 71	4 22	4 13	5 07	4 05
		Dividends Per Share	N A	N/A	N/A	N/A	N/A	N A	N/A	N/A	N/A	N/A	0 00	2 58	2 7	2 82	2 91	2 97	3 03	3 09	3 15	3 24	3 36	3 49	3 64	3 75	3 82
		Payout Ratio	N A	N/A	N/A	N/A	N/A	N A	N/A	N/A	N/A	N/A	0 00%	71 67%	89 11%	83 19%	72 39%	71 74%	81 67%	77 64%	76 27%	79 02%	90 57%	82 70%	88 14%	73 96%	94 32%
		Annual Earnings Growth	N/A	N/A	N/A	N/A	N/A	N A	N/A	N/A	N/A	N/A	N/A	30 43%	-15 83%	11 88%	18 58%	2 99%	-10 39%	7 28%	3 77%	-0 73%	-9 51%	13 75%	-2 13%	22 76%	-20 12%
		5yr Avg Fwd EPS Growth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9 61%	1 45%	6 07%	4 45%	0 58%	-1 92%	2 91%	1 03%	4 83%	0 95%	N/A	N/A	N/A	N/A	N/A
Edison International	EIX	Earnings Per Share	1 64	1 75	1 86	2 03	N/A	1 30	1 82	2 38	0 69	3 34	3 28	3 32	3 68	3 24	3 35	3 23	4 55	3 76	4 33	4 15	3 94	4 51	-1 26	3 98	1 70
		Dividends Per Share	1 00	1 00	1 04	1 08	0 83	N/A	N/A	N/A	0 80	1 02	1 10	1 18	1 23	1 25	1 27	1 29	1 31	1 37	1 48	1 73	1 98	2 23	2 43	2 48	2 58
		Payout Ratio	60 98%	57 14%	55 91%	53 20%	N/A	N/A	N/A	N/A	115 94%	30 54%	33 54%	35 54%	33 42%	38 58%	37 91%	39 94%	28 79%	36 24%	34 18%	41 69%	50 25%	49 45%	N/A	62 31%	151 76%
		Annual Earnings Growth	N/A	6 71%	6 29%	9 14%	N/A	N/A	40 00%	30 77%	-71 01%	384 06%	-1 80%	1 22%	10 84%	-11 96%	3 40%	-3 58%	40 87%	-16 92%	14 55%	-4 16%	-5 06%	14 47%	-127 94%	415 87%	-57 29%
		5yr Avg Fwd EPS Growth	N/A	N/A	N/A	N/A	N/A	76 40%	68 65%	64 66%	76 47%	0 34%	-0 02%	7 91%	2 36%	7 66%	6 15%	5 86%	0 58%	-21 53%	-107 71%	-118 34%	N/A	N/A	N/A	N/A	N/A
Entergy Corporation	ETR	Earnings Per Share	N/A	2 25	2 22	2 25	2 97	3 08	3 68	3 69	3 93	4 40	5 36	5 60	6 20	6 30	6 66	7 55	6 02	4 96	5 77	5 81	6 88	5 19	5 88	6 30	6 90
		Dividends Per Share	N/A	1 80	1 50	1 20	1 22	1 28	1 34	1 80	1 89	2 16	2 16	2 58	3 00	3 00	3 24	3 32	3 32	3 32	3 32	3 34	3 42	3 50	3 58	3 66	3 74
		Payout Ratio	N/A	80 00%	67 57%	53 33%	41 08%	41 56%	36 41%	43 36%	48 09%	49 09%	40 30%	46 07%	48 39%	47 62%	48 65%	43 97%	55 15%	66 94%	57 54%	57 49%	49 71%	67 44%	60 88%	58 10%	54 20%
		Annual Earnings Growth	N/A	N/A	-1 33%	1 35%	32 00%	3 70%	19 48%	0 27%	6 50%	11 96%	21 82%	4 48%	10 71%	1 61%	5 71%	13 36%	-20 26%	-17 61%	16 33%	0 69%	18 42%	-24 56%	13 29%	7 14%	9 52%
		5yr Avg Fwd EPS Growth	N A	11 04%	11 36%	12 39%	8 38%	12 01%	9 01%	11 09%	10 12%	8 87%	7 18%	2 23%	-3 44%	-0 49%	-1 50%	-0 49%	-1 35%	4 83%	3 00%	4 76%	N/A	N/A	N/A	N/A	N/A
IDACORP Inc	IDA	Earnings Per Share	2 21	2 32	2 37	2 43	3 50	3 35	1 63	0 96	1 90	1 75	2 35	1 86	2 18	2 64	2 95	3 36	3 37	3 64	3 85	3 87	3 94	4 21	4 49	4 61	4 65
		Dividends Per Share	1 86	1 86	1 86	1 86	1 86	1 86	1 86	1 70	1 20	1 20	1 20	1 20	1 20	1 20	1 20	1 20	1 37	1 57	1 76	1 92	2 08	2 24	2 40	2 56	2 72
		Payout Ratio	84 16%	80 17%	78 48%	76 54%	53 14%	55 52%	114 11%	177 08%	63 16%	68 57%	51 06%	64 52%	55 05%	45 45%	40 68%	35 71%	40 65%	43 13%	45 71%	49 61%	52 79%	53 21%	53 45%	55 53%	58 49%
		Annual Earnings Growth	N/A	4 98%	2 16%	2 53%	44 03%	4 29%	51 34%	41 10%	97 92%	-7 89%	34 29%	-20 85%	17 20%	21 10%	11 74%	13 90%	0 30%	8 01%	5 77%	0 52%	1 81%	6 85%	6 65%	2 67%	0 87%
		5yr Avg Fwd EPS Growth	9 88%	-1 38%	-10 03%	9 04%	-1 34%	6 37%	12 47%	24 13%	8 77%	12 70%	8 52%	12 85%	11 01%	7 94%	5 70%	3 28%	4 59%	4 32%	3 70%	3 77%	N A	N/A	N/A	N/A	N/A
NorthWestern Corporation	NWE	Earnings Per Share	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-14 32	1 71	1 31	1 44	1 77	2 02	2 14	2 53	2 26	2 46	2 99	2 90	3 39	3 34	3 40	3 53	3 15
		Dividends Per Share	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1 00	1 24	1 28	1 32	1 34	1 36	1 44	1 48	1 52	1 60	1 92	2 00	2 10	2 20	2 30	2 40
		Payout Ratio	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	58 48%	94 66%	88 89%	74 58%	66 34%	63 55%	56 92%	65 49%	61 79%	53 51%	66 21%	59 00%	62 87%	64 71%	65 16%	76 19%
		Annual Earnings Growth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	111 84%	-23 39%	9 92%	22 92%	14 12%	5 94%	18 22%	-10 67%	8 85%	21 54%	-3 01%	16 90%	1 47%	1 80%	3 82%	-10 76%
		5yr Avg Fwd EPS Growth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-17 67%	5 90%	14 23%	10 11%	7 29%	8 78%	6 99%	6 72%	8 66%	7 15%	3 61%	2 06%	N/A	N/A	N/A	N/A	N/A
OGE Energy Corp	OGE	Earnings Per Share	0 81	0 81	1 02	0 97	0 95	0 65	0 72	0 87	0 89	0 92	1 23	1 32	1 25	1 33	1 5	1 73	1 79	1 94	1 98	1 69	1 69	1 92	2 12	2 24	2 08
		Dividends Per Share	0 67	0 67	0 67	0 67	0 67	0 67	0 67	0 67	0 67	0 67	0 67	0 68	0 7	0 71	0 73	0 76	0 8	0 85	0 95	1 05	1 16	1 27	1 4	1 51	1 58
		Payout Ratio	82 72%	82 72%	65 69%	69 07%	70 53%	103 08%	93 06%	77 01%	75 28%	72 83%	54 47%	51 52%	56 00%	53 38%	48 67%	43 93%	44 69%	43 81%	47 98%	62 13%	68 64%	66 15%	66 04%	67 41%	75 96%
		Annual Earnings Growth	N/A	0 00%	25 93%	-4 90%	-2 06%	-31 58%	10 77%	20 83%	2 30%	3 37%	33 70%	7 32%	-5 30%	6 40%	12 78%	15 33%	3 47%	8 38%	2 06%	-14 65%	0 00%	13 61%	10 42%	5 68%	-7 14%
		5yr Avg Fwd EPS Growth	-2 52%	-0 37%	-1 39%	0 05%	1 14%	14 19%	13 50%	8 28%	9 10%	10 98%	7 31%	6 54%	9 27%	8 41%	2 92%	-0 15%	1 88%	2 29%	3 01%	4 51%	N/A	N/A	N/A	N/A	N/A
Otter Tail Corporation	OTTR	Earnings Per Share	1 24	1 29	1 29	1 45	1 60	1 68	1 79	1 51	1 50	1 78	1 69	1 78	1 09	0 71	0 38	0 45	1 05	1 37	1 55	1 56	1 60	1 86	2 06	2 17	2 34
		Dividends Per Share	0 90	0 93	0 96	0 99	1 02	1 04	1 06	1 08	1 10	1 12	1 15	1 17	1 19	1 19	1 19	1 19	1 19	1 19	1 21	1 23	1 25	1 28	1 34	1 40	1 48
		Payout Ratio	72 58%	72 09%	74 42%	68 28%	63 75%	61 90%	59 22%	71 52%	73 33%	62 92%	68 06%	65 73%	109 17%	167 61%	313 16%	264 44%	113 33%	86 86%	78 06%	78 85%	78 13%	68 82%	65 05%	64 52%	63 25%
		Annual Earnings Growth	N/A	4 03%	0 00%	12 40%	10 34%	5 00%	6 55%	-15 64%	-0 66%	18 67%	-5 06%	5 33%	-38 76%	34 86%	-46 48%	18 42%	133 33%	30 48%	13 14%	0 65%	2 56%	16 25%	10 75%	5 34%	7 83%
		5yr Avg Fwd EPS Growth	6 36%	6 86%	3 73%	1 12%	2 78%	0 77%	0 53%	4 10%	-10 94%	-23 97%	-19 27%	6 33%	20 18%	29 78%	39 20%	36 03%	12 61%	8 67%	7 11%	8 55%	N/A	N/A	N/A	N/A	N/A
Pinnacle West Capital Corporation	PNW	Earnings Per Share	2 47	2 76	2 85	3 18	3 35	3 68	2 53	2 52	2 58	2 24	3 17	2 96	2 12	2 26	3 08	2 99	3 50	3 66	3 58	3 92	3 95	4 43	4 54	4 77	5 10
		Dividends Per Share	1 03	1 13	1 23	1 33	1 43	1 53	1 63	1 73	1 83	1 93	2 03	2 10	2 10	2 10	2 10	2 10	2 67	2 23	2 33	2 44	2 56	2 70	2 87	3 04	3 23
		Payout Ratio	41 70%	40 94%	43 16%	41 82%	42 69%	41 58%	64 43%	68 65%	70 93%	86 16%	64 04%	70 95%	99 06%	92 92%	68 18%	70 23%	76 29%	60 93%	65 08%	62 24%	64 81%	60 95%	63 22%	63 73%	63 33%
		Annual Earnings Growth	N/A	11 74%	3 26%	11 58%	5 35%	9 85%	-31 25%	-0 40%	2 38%	-13 18%	41 52%	-6 62%	-28 38%	6 60%	36 28%	-2 92%	17 06%	4 57%	-2 19%	9 50%	0 77%	12 15%	2 48%	5 07%	6 92%
		5yr Avg Fwd EPS Growth	8 36%	-0 24%	-0 97%	2 81%	-6 52%	-0 18%	4 74%	-0 86%	-0 01%	9 88%	0 99%	5 73%	12 32%	10 56%	5 20%	5 94%	4 96%	4 54%	5 99%	5 48%	N/A	N/A	N/A	N/A	N/A
Portland General Electric Company	POR	Earnings Per Share	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1 02	1 14	2 33	1 39	1 31	1 66	1 95	1 87	1 77	2 18	2 04	2 16	2 29	2 37	2 39	1 55
		Dividends Per Share	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0 68	0 93	0 97	1 01	1 04	1 06	1 08	1 10	1 12	1 18	1 26	1 34	1 43	1 52	1 68
		Payout Ratio	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	59 65%	39 91%	69 78%	77 10%	62 65%	54 36%	57 75%	62 15%	51 38%	57 84%	58 33%	58 52%	60 34%	63 60%	108 39%
		Annual Earnings Growth	N/A	N/A	N/A	N/A	N A	N/A	N/A	N/A	N A	N/A	11 76%	104 39%	-40 34%	-5 76%	26 72%	17 47%	4 10%	-5 35%	23 16%	-6 42%	5 88%	6 02%	3 49%	0 84%	-35 15%
		5yr Avg Fwd EPS Growth	N/A	N/A	N/A	N/A	N A	N/A	N A	N/A	N/A	N/A	19 35%	20 49%	-1 20%	5 80%	11 58%	4 95%	2 63%	4 66%	6 43%	1 96%	-3 78%	N A	N/A	N/A	N/A
Xcel Energy Inc	XEL	Earnings Per Share	1 91	1 61	1 84	1 43	1 60	2 27	0 42	1 23	1 27	1 20	1 35	1 35	1 46	1 49	1 56	1 72	1 85	1 91	2 03	2 10	2 21	2 30	2 47	2 64	2 80
		Dividends Per Share	1 37	1 40	1 43	1 45	1 48	1 50	1 13	0 75	0 81	0 85	0 88	0 91	0 94	0 97	1 00	1 03	1 07	1 11	1 20	1 28	1 36	1 44	1 52	1 62	1 72
		Payout Ratio	71 73%	86 96%	77 72%	101 40%	92 50%	66 08%	269 05%	60 98%	63 78%	70 83%	65 19%	67 41%	64 38%	65 10%	64 10%	59 88%	57 84%	58 12%	59 11%	60 95%	61 54%	62 61%	61 54%	61 36%	61 43%
		Annual Earnings Growth	N/A	15 71%	14 29%	-22 28%	11 89%	41 88%	-81 50%	192 86%	3 25%	-5 51%	12 50%	0 00%	8 15%	2 05%	4 70%	10 26%	7 56%	3 24%	6 28%	3 45%	5 24%	4 07%	7 39%	6 88%	6 06%
		5yr Avg Fwd EPS Growth	6 01%	-7 15%	28 57%	33 67%	30 19%	24 32%	40 62%	3 68%	3 44%	5 48%	5 03%	6 54%	5 56%	6 41%	6 16%	5 15%	4 46%	5 29%	5 41%	5 93%	N/A	N/A	N/A	N/A	N/A

Source Value Line
"N/A" indicates no dividend was paid earnings were negative or financials were not available
Average 5 year forward earnings per share growth is only reported when data is available for all 5 years

Southwestern Electric Power Company
Gross Domestic Product by Industry

Industry	1947	2019	CAGR	Percent of Total GDP in the Year 2244	Percent of Total GDP in the Year 5449
Agriculture, forestry, fishing, and hunting	19.9	169 2	3 02%		
Mining	5 8	320 3	5 73%		
Utilities	3 5	334 6	**6.54%**		
Construction	8 9	886 6	**6.60%**		
Manufacturing	63.4	2,359 9	5 15%		
Wholesale trade	15 6	1,278 1	6 31%		
Retail trade	23 2	1,172 9	5 60%		
Transportation and warehousing	14 1	684 5	5.54%		
Information	7 7	1,120 3	**7.16%**		
Finance, insurance, real estate, rental, and leasing	25 8	4,491.7	**7.43%**		
Professional and business services	8 2	2,742 2	**8.41%**		
Educational services, health care, and social assistance	4 6	1,881 4	**8.71%**	50 06%	99.99%
Arts, entertainment, recreation, accommodation, and food services	8 0	898 5	**6.78%**		
Other services, except government	7 5	456 6	5 87%		
Government	33.5	2,630 9	6 25%		
Total Gross domestic product	249.7	21,427.7	6 38%		

Source Bureau of Economic Analysis

Southwestern Electric Power Company
Market-to-Book Ratios, Earnings / Book Ratios and
Inflation for Standard & Poor's Industrial Index and
the Standard & Poor's 500 Composite Index
from 1947 through 2019

	Market-to-Book Ratio (1)		Earnings / Book Common Equity Ratio (2)			
Year	S&P Industrial Index (3)	S&P 500 Composite Index (3)	S&P Industrial Index (3)	S&P 500 Composite Index (3)	Inflation (4)	Earnings / Book Common Equity Ratio - Net of Inflation
1947	1 23	NA	13 0 %	NA	9 0 %	4 0 % NA
1948	1 13	NA	17 3	NA	2 7	14 6 NA
1949	1 00	NA	16 3	NA	(1 8)	18 1 NA
1950	1 16	NA	18 3	NA	5 8	12 5 NA
1951	1 27	NA	14 4	NA	5 9	8 5 NA
1952	1 29	NA	12 7	NA	0 9	11 8 NA
1953	1 21	NA	12 7	NA	0 6	12 1 NA
1954	1 45	NA	13 5	NA	(0 5)	14 0 NA
1955	1 81	NA	16 0	NA	0 4	15 6 NA
1956	1 92	NA	13 7	NA	2 9	10 8 NA
1957	1 71	NA	12 5	NA	3 0	9 5 NA
1958	1 70	NA	9 8	NA	1 8	8 0 NA
1959	1 94	NA	11 2	NA	1 5	9 7 NA
1960	1 82	NA	10 3	NA	1 5	8 8 NA
1961	2 01	NA	9 8	NA	0 7	9 1 NA
1962	1 83	NA	10 9	NA	1 2	9 7 NA
1963	1 94	NA	11 4	NA	1 7	9 8 NA
1964	2 18	NA	12 3	NA	1 2	11 1 NA
1965	2 21	NA	13 2	NA	1 9	11 3 NA
1966	2 00	NA	13 2	NA	3 4	9 9 NA
1967	2 05	NA	12 1	NA	3 0	9 1 NA
1968	2 17	NA	12 6	NA	4 7	7 9 NA
1969	2 10	NA	12 1	NA	6 1	6 0 NA
1970	1 71	NA	10 4	NA	5 5	4 9 NA
1971	1 99	NA	11 2	NA	3 4	7 8 NA
1972	2 16	NA	12 0	NA	3 4	8 6 NA
1973	1 96	NA	14 6	NA	8 8	5 8 NA
1974	1 39	NA	14 8	NA	12 2	2 6 NA
1975	1 34	NA	12 3	NA	7 0	5 3 NA
1976	1 51	NA	14 5	NA	4 8	9 7 NA
1977	1 38	NA	14 6	NA	6 8	7 8 NA
1978	1 25	NA	15 3	NA	9 0	6 3 NA
1979	1 23	NA	17 2	NA	13 3	3 9 NA
1980	1 31	NA	15 6	NA	12 4	3 2 NA
1981	1 24	NA	14 9	NA	8 9	6 0 NA
1982	1 17	NA	11 3	NA	3 9	7 4 NA
1983	1 45	NA	12 2	NA	3 8	8 4 NA
1984	1 46	NA	14 6	NA	4 0	10 7 NA
1985	1 67	NA	12 2	NA	3 8	8 4 NA
1986	2 02	NA	11 5	NA	1 1	10 4 NA
1987	2 50	NA	15 7	NA	4 4	11 3 NA
1988	2 13	NA	19 0	NA	4 4	14 6 NA
1989	2 56	NA	18 5	NA	4 7	13 9 NA
1990	2 63	NA	16 3	NA	6 1	10 2 NA
1991	2 77	NA	10 8	NA	3 1	7 8 NA
1992	3 29	NA	13 0	NA	2 9	10 1 NA
1993	3 72	NA	15 7	NA	2 8	13 0 NA
1994	3 73	NA	23 0	NA	2 7	20 3 NA
1995	4 06	2 64	22 9	16 0	2 5	20 4 13 5
1996	4 79	3 00	24 8	16 8	3 3	21 5 13 5
1997	5 88	3 53	24 6	16 3	1 7	22 9 14 6
1998	7 13	4 16	21 3	14 5	1 6	19 7 12 9
1999	8 27	4 76	25 2	17 1	2 7	22 5 14 4
2000	7 51	4 51	23 9	16 2	3 4	20 5 12 8
2001	NA	3 50	NA	7 4	1 6	NA 5 9
2002	NA	2 93	NA	8 3	2 4	NA 5 9
2003	NA	2 78	NA	14 1	1 9	NA 12 2
2004	NA	2 91	NA	15 3	3 3	NA 12 0
2005	NA	2 78	NA	16 4	3 4	NA 13 0
2006	NA	2 77	NA	17 0	2 5	NA 14 5
2007	NA	2 84	NA	12 8	4 1	NA 8 7
2008	NA	2 24	NA	3 0	0 1	NA 2 9
2009	NA	1 87	NA	10 6	2 7	NA 7 9
2010	NA	2 09	NA	14 2	1 5	NA 12 7
2011	NA	2 07	NA	14 6	3 0	NA 11 6
2012	NA	2 14	NA	13 5	1 7	NA 11 8
2013	NA	2 39	NA	14 5	1 5	NA 13 0
2014	NA	2 66	NA	14 2	0 8	NA 13 4
2015	NA	2 73	NA	11 8	0 7	NA 11 1
2016	NA	2 72	NA	12 5	2 1	NA 10 5
2017	NA	3 10	NA	13 8	2 1	NA 11 7
2018	NA	3 15	NA	15 8	1 9	NA 13 9
2019	NA	3 22	NA	15 8	2 3	NA 13 5

Notes

(1) Market-to-Book Ratio equals average of the high and low market price for the year divided by the average book value

(2) Earnings/Book equals earnings per share for the year divided by the average book value

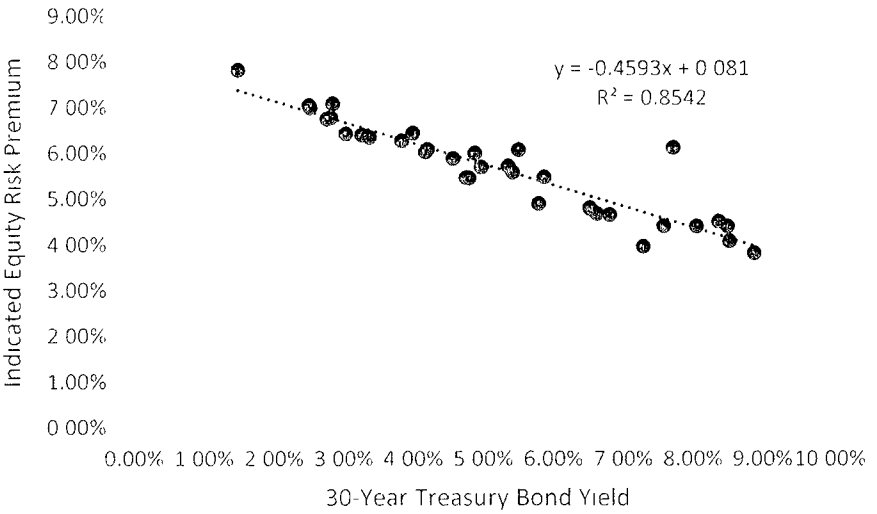
(3) On January 2, 2001 Standard & Poor's released Global Industry Classification Standard (GICS) price indexes for all Standard & Poor's U S indexes As a result, all S&P Indexes have been calculated with a common base of 100 at a start date of December 31, 1994 Also, the GICS industrial sector is not comparable to the former S&P Industrial Index and data for the former S&P Industrial Index was discontinued

(4) As measured by the Consumer Price Index (CPI)

Sources of Information

Standard & Poor's Security Price Index Record, 2000 Edition, p 40
Standard & Poor's Statistical Service, Current Statistics, March 2013, p 30
Duff and Phelps SBBI 2020 Yearbook Appendix A Tables, Stocks, Bonds, Bills, and Inflation | 1926-2019
sp 500 eps est xlsx https //ycharts com/indicators/sp_500_eps,
https //ycharts com/indicators/sp_500_book_value_per_share
finance yahoo com

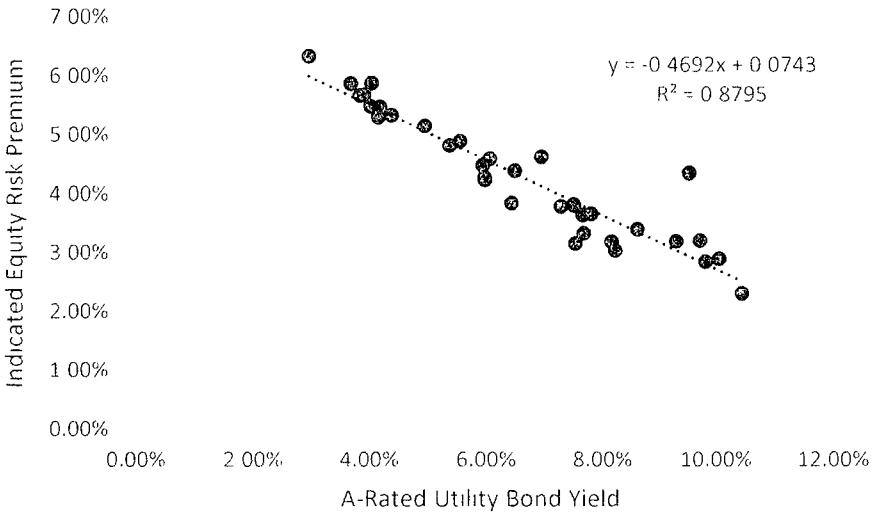
Southwestern Electric Power Company
Mr. Gorman's Corrected Risk Premium Model - Treasury Bond



Constant	Slope	Prospective 30-Year Treasury Yield	Risk Premium	Return on Equity
8.10%	-45.93%	2.48%	6.96%	9.44%

Sources: MPG-12; Bloomberg Professional; Blue Chip Financial Forecasts, March 1, 2021 and December 1, 2020

Southwestern Electric Power Company
Mr. Gorman's Corrected Risk Premium Model - Baa Utility Bond



Constant	Slope	Prospective Baa Utility Yield	Risk Premium	Return on Equity
7 43%	-46.92%	4.04%	5.53%	9 57%

Sources: MPG-12; Bloomberg Professional; Blue Chip Financial Forecasts, March 1, 2021 and December 1, 2020

Southwestern Electric Power Company
Mr Gorman's Financial Integrity Analysis (Schedule MPG-18)

Line	Description	Retail Cost of Service Amount (1)	S&P Benchmark (Medial Volatility) Intermediate (2)	Significant (3)	Aggressive (4)	Reference (5)
1	Rate Base (Retail)	$ 2,025,542,720				Schedule A-1
2	Weighted Common Return	4 52%				Sch MPG-18, Page 2, Line 2, Col 4
3	Pre-Tax Rate of Return	8 00%				Sch MPG-18, Page 2, Line 3, Col 5.
4	Income to Common	$ 91,505,242				Line 1 x Line 2
5	EBIT	$ 162,086,043				Line 1 x Line 3
6	Depreciation & Amortization	$ 105,928,834				Schedule A-1
7	Imputed Amortization	$ 2,424,541				S&P Capital IQ, downloaded on March 16, 2021
8	Capitalized Interest	$ (294,472)				Response to 4th RFI, TIEC 4-10.
9	Deferred Income Taxes & ITC	$ (128,564)				Schedule A, Workpaper A
10	Funds from Operations (FFO)	$ 199,435,581				Sum of Line 4 and Lines 6 through 9.
11	Imputed Interest Expense	$ 5,956,837				S&P Capital IQ, downloaded on March 16, 2021
12	EBITDA	$ 276,396,255				Sum of Lines 5 through 7 and Line 11
13	Adjusted Debt	$ 1,047,065,141				Page 3, Line 3, Col. 1 x RB TX Allocator
14	Total Adjusted Debt Ratio	53 12%				Sch MPG-18, Page 3, Line 4, Col 2
15	Debt to EBITDA	3 79x	2.5x - 3 5x	3.5x - 4 5x	4 5x - 5 5x	Line 13 / Line 12
16	FFO to Total Debt	19.05%	23% - 35%	13% - 23%	9% - 13%	Line 10 / Line 13
17	Indicative Credit Rating		A	A-	BBB	S&P Methodology, November 19, 2013

S&P's Credit Metrics - ROE to Meet Upper Bound Debt/EBITDA Significant Test (5.80% ROE)

Line	Description	Retail Cost of Service Amount (1)	S&P Benchmark (Medial Volatility) Intermediate (2)	Significant (3)	Aggressive (4)	Reference (5)
1	Rate Base (Retail)	$ 2,025,542,720				Schedule A-1
2	Weighted Common Return	2.86%				Overall ROR with 5 80% ROE and Proposed Capital Structure
3	Pre-Tax Rate of Return	5.84%				Line 3 x Tax Conversion Factor of 1 30337
4	Income to Common	$ 57,953,320				Line 1 x Line 2
5	EBIT	$ 118,355,462				Line 1 x Line 3
6	Depreciation & Amortization	$ 105,928,834				Schedule A-1
7	Imputed Amortization	$ 2,424,541				S&P Capital IQ, downloaded on March 16, 2021
8	Capitalized Interest	$ (294,472)				Response to 4th RFI, TIEC 4-10
9	Deferred Income Taxes & ITC	$ (128,564)				Schedule A, Workpaper A
10	Funds from Operations (FFO)	$ 165,883,659				Sum of Line 4 and Lines 6 through 9
11	Imputed Interest Expense	$ 5,956,837				S&P Capital IQ, downloaded on March 16, 2021
12	EBITDA	$ 232,665,674				Sum of Lines 5 through 7 and Line 11.
13	Adjusted Debt	$ 1,047,065,141				Page 3, Line 3, Col 1 x RB TX Allocator
14	Total Adjusted Debt Ratio	53 1%				Sch MPG-18, Page 3, Line 4, Col 2
15	Debt to EBITDA	4 50x	2 5x - 3 5x	3 5x - 4 5x	4 5x - 5 5x	Line 13 / Line 12
16	FFO to Total Debt	15 84%	23% - 35%	13% - 23%	9% - 13%	Line 10 / Line 13
17	Indicative Credit Rating		A	A-	BBB	S&P Methodology, November 19, 2013

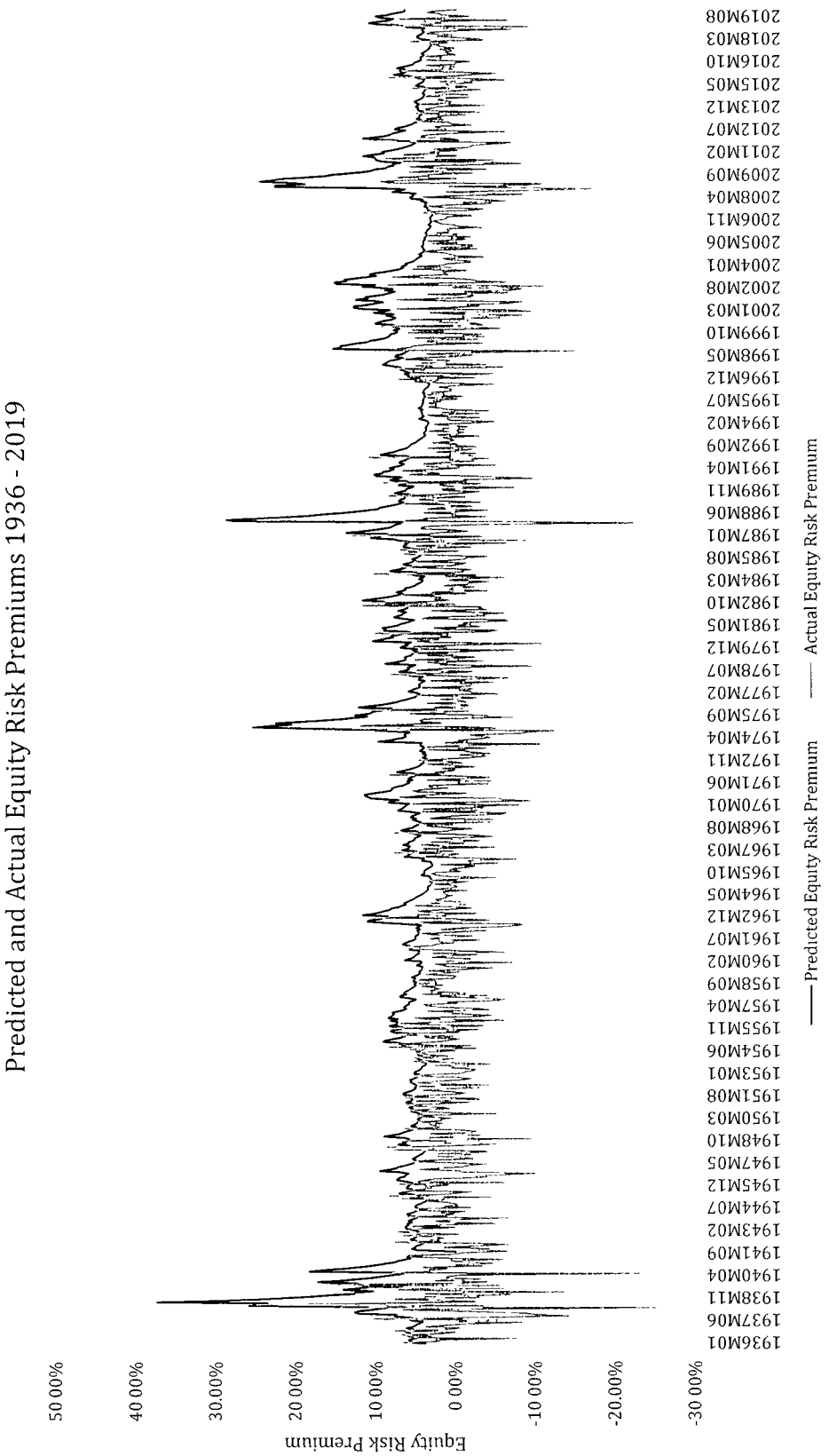
S&P's Credit Metrics - ROE to Meet Lower Bound Debt/EBITDA Significant Test (10 89% ROE)

Line	Description	Retail Cost of Service Amount (1)	S&P Benchmark (Medial Volatility) Intermediate (2)	Significant (3)	Aggressive (4)	Reference (5)
1	Rate Base (Retail)	$ 2,025,542,720				Schedule A-1
2	Weighted Common Return	5 38%				Overall ROR with 10.89% ROE and Proposed Capital Structure
3	Pre-Tax Rate of Return	9.12%				Line 3 x Tax Conversion Factor of 1 30337
4	Income to Common	$ 108,906,239				Line 1 x Line 2
5	EBIT	$ 184,765,987				Line 1 x Line 3
6	Depreciation & Amortization	$ 105,928,834				Schedule A-1
7	Imputed Amortization	$ 2,424,541				S&P Capital IQ, downloaded on March 16, 2021
8	Capitalized Interest	$ (294,472)				Response to 4th RFI, TIEC 4-10
9	Deferred Income Taxes & ITC	$ (128,564)				Schedule A, Workpaper A
10	Funds from Operations (FFO)	$ 216,836,577				Sum of Line 4 and Lines 6 through 9
11	Imputed Interest Expense	$ .5,956,837				S&P Capital IQ, downloaded on March 16, 2021
12	EBITDA	$ 299,076,199				Sum of Lines 5 through 7 and Line 11
13	Adjusted Debt	$ 1,047,065,141				Page 3, Line 3, Col 1 x RB TX Allocator.
14	Total Adjusted Debt Ratio	53.1%				Sch MPG-18, Page 3, Line 4, Col 2
15	Debt to EBITDA	3.50x	2 5x - 3.5x	3.5x - 4 5x	4 5x - 5 5x	Line 13 / Line 12
16	FFO to Total Debt	20.71%	23% - 35%	13% - 23%	9% - 13%	Line 10 / Line 13
17	Indicative Credit Rating		A	A-	BBB	S&P Methodology, November 19, 2013

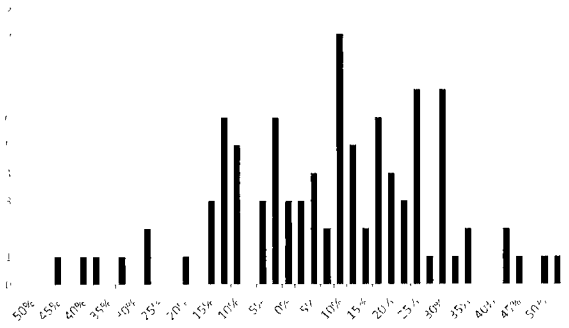
S&P's Credit Metrics - at Company's Proposed 10 35% ROE

Line	Description	Retail Cost of Service Amount (1)	S&P Benchmark (Medial Volatility) Intermediate (2)	Significant (3)	Aggressive (4)	Reference (5)
1	Rate Base (Retail)	$ 2,025,542,720				Schedule A-1
2	Weighted Common Return	5 11%				Overall ROR with 10 35% ROE and Proposed Capital Structure
3	Pre-Tax Rate of Return	8 77%				Line 3 x Tax Conversion Factor of 1.30337
4	Income to Common	$ 103,505,929				Line 1 x Line 2
5	EBIT	$ 177,727,383				Line 1 x Line 3
6	Depreciation & Amortization	$ 105,928,834				Schedule A-1
7	Imputed Amortization	$ 2,424,541				S&P Capital IQ, downloaded on March 16, 2021
8	Capitalized Interest	$ (294,472)				Response to 4th RFI, TIEC 4-10.
9	Deferred Income Taxes & ITC	$ (128,564)				Schedule A, Workpaper A
10	Funds from Operations (FFO)	$ 211,436,268				Sum of Line 4 and Lines 6 through 9
11	Imputed Interest Expense	$ 5,956,837				S&P Capital IQ, downloaded on March 16, 2021
12	EBITDA	$ 292,037,596				Sum of Lines 5 through 7 and Line 11
13	Adjusted Debt	$ 1,047,065,141				Page 3, Line 3, Col 1 x RB TX Allocator
14	Total Adjusted Debt Ratio	53.1%				Sch MPG-18, Page 3, Line 4, Col 2.
15	Debt to EBITDA	3 59x	2 5x - 3 5x	3 5x - 4 5x	4 5x - 5 5x	Line 13 / Line 12
16	FFO to Total Debt	20 19%	23% - 35%	13% - 23%	9% - 13%	Line 10 / Line 13
17	Indicative Credit Rating		A	A-	BBB	S&P Methodology, November 19, 2013

Source: Schedule MPG-18


Predicted and Actual Equity Risk Premiums 1936 - 2019
Equity Risk Premium
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
-10.00%
-20.00%
-30.00%
1936M01
1937M06
1938M11
1940M04
1941M09
1943M02
1944M07
1945M12
1947M05
1948M10
1950M03
1951M08
1953M01
1954M06
1955M11
1957M04
1958M09
1960M02
1961M07
1962M12
1964M05
1965M10
1967M03
1968M08
1970M01
1971M06
1972M11
1974M04
1975M09
1977M02
1978M07
1979M12
1981M05
1982M10
1984M03
1985M08
1987M01
1988M06
1989M11
1991M04
1992M09
1994M02
1995M07
1996M12
1998M05
1999M10
2001M03
2002M08
2004M01
2005M06
2006M11
2008M04
2009M09
2011M02
2012M07
2013M12
2015M05
2016M10
2018M03
2019M08
Predicted Equity Risk Premium
Actual Equity Risk Premium

Southwestern Electric Power Company
Frequency Distribution of Market Risk Premium, 1926 - 2019



Year	Large Company Stocks Total Returns Jan-Dec*	Long-Term Government Bond Income Returns Jan-Dec*	MRP Jan-Dec*
1926	0 1162	0 0373	0 0789
1927	0 3749	0 0341	0 3408
1928	0 4361	0 0322	0 4039
1929	-0 0842	0 0347	-0 1189
1930	-0 2490	0 0332	-0 2822
1931	-0 4334	0 0333	-0 4667
1932	-0 0819	0 0369	-0 1188
1933	0 5399	0 0312	0 5087
1934	-0 0144	0 0318	-0 0462
1935	0 4767	0 0281	0 4486
1936	0 3392	0 0277	0 3115
1937	-0 3503	0 0266	-0 3769
1938	0 3112	0 0264	0 2848
1939	-0 0041	0 0240	-0 0281
1940	-0 0978	0 0223	-0 1201
1941	-0 1159	0 0194	-0 1353
1942	0 2034	0 0246	0 1788
1943	0 2590	0 0244	0 2346
1944	0 1975	0 0246	0 1729
1945	0 3644	0 0234	0 3410
1946	-0 0807	0 0204	-0 1011
1947	0 0571	0 0213	0 0358
1948	0 0550	0 0240	0 0310
1949	0 1879	0 0225	0 1654
1950	0 3171	0 0212	0 2959
1951	0 2402	0 0238	0 2164
1952	0 1837	0 0266	0 1571
1953	-0 0099	0 0284	-0 0383
1954	0 5262	0 0279	0 4983
1955	0 3156	0 0275	0 2881
1956	0 0656	0 0299	0 0357
1957	-0 1078	0 0344	-0 1422
1958	0 4336	0 0327	0 4009
1959	0 1196	0 0401	0 0795
1960	0 0047	0 0426	-0 0379
1961	0 2689	0 0383	0 2306
1962	-0 0873	0 0400	-0 1273
1963	0 2280	0 0389	0 1891
1964	0 1648	0 0415	0 1233
1965	0 1245	0 0419	0 0826
1966	-0 1006	0 0449	-0 1455
1967	0 2398	0 0459	0 1939
1968	0 1106	0 0550	0 0556
1969	-0 0850	0 0595	-0 1445
1970	0 0386	0 0674	-0 0288
1971	0 1430	0 0632	0 0798
1972	0 1899	0 0587	0 1312
1973	-0 1469	0 0651	-0 2120
1974	-0 2647	0 0727	-0 3374
1975	0 3723	0 0799	0 2924
1976	0 2393	0 0789	0 1604
1977	-0 0716	0 0714	-0 1430
1978	0 0657	0 0790	-0 0133
1979	0 1861	0 0886	0 0975
1980	0 3250	0 0997	0 2253
1981	-0 0492	0 1155	-0 1647
1982	0 2155	0 1350	0 0805
1983	0 2256	0 1038	0 1218

MRP

Bin	*Frequency*	*Cumulative %*
-50 00%	0	0 0%
-47 50%	0	0 0%
-45 00%	1	1 1%
-42 50%	0	1 1%
-40 00%	1	2 1%
-37 50%	1	3 2%
-35 00%	0	3 2%
-32 50%	1	4 3%
-30 00%	0	4 3%
-27 50%	2	6 4%
-25 00%	0	6 4%
-22 50%	0	6 4%
-20 00%	1	7 4%
-17 50%	0	7 4%
-15 00%	3	10 6%
-12 50%	6	17 0%
-10 00%	5	22 3%
-7 50%	0	22 3%
-5 00%	3	25 5%
-2 50%	6	31 9%
0 00%	3	35 1%
2 50%	3	38 3%
5 00%	4	42 6%
7 50%	2	44 7%
10 00%	9	54 3%
12 50%	5	59 6%
15 00%	2	61 7%
17 50%	6	68 1%
20 00%	4	72 3%
22 50%	3	75 5%
25 00%	7	83 0%
27 50%	1	84 0%
30 00%	7	91 5%
32 50%	1	92 6%
35 00%	2	94 7%
37 50%	0	94 7%
40 00%	0	94 7%
42 50%	2	96 8%
45 00%	1	97 9%
47 50%	0	97 9%
50 00%	1	98 9%
51 00%	1	100 0%
Count	94	

MRP from Direct	Rank
10 92%	56 10%
MRP from Rebuttal	**Rank**
9 59%	51 50%

Historical Market Return - Direct

	% Rank	Occurrence
13 01%	48 80%	48

Historical Market Return - Rebuttal

	% Rank	Occurrence
12 32%	48 10%	49

Year	Large Company Stocks Total Returns Jan-Dec*	Long-Term Government Bond Income Returns Jan-Dec*	MRP Jan-Dec*
1984	0 0627	0 1174	-0 0547
1985	0 3173	0 1125	0 2048
1986	0 1867	0 0898	0 0969
1987	0 0525	0 0792	-0 0267
1988	0 1661	0 0897	0 0764
1989	0 3169	0 0881	0 2288
1990	-0 0310	0 0819	-0 1129
1991	0 3047	0 0822	0 2225
1992	0 0762	0 0726	0 0036
1993	0 1008	0 0717	0 0291
1994	0 0132	0 0659	-0 0527
1995	0 3758	0 0760	0 2998
1996	0 2296	0 0618	0 1678
1997	0 3336	0 0664	0 2672
1998	0 2858	0 0583	0 2275
1999	0 2104	0 0557	0 1547
2000	-0 0910	0 0650	-0 1560
2001	-0 1189	0 0553	-0 1742
2002	-0 2210	0 0559	-0 2769
2003	0 2868	0 0480	0 2388
2004	0 1088	0 0502	0 0586
2005	0 0491	0 0469	0 0022
2006	0 1579	0 0468	0 1111
2007	0 0549	0 0486	0 0063
2008	-0 3700	0 0445	-0 4145
2009	0 2646	0 0347	0 2299
2010	0 1506	0 0425	0 1081
2011	0 0211	0 0382	-0 0171
2012	0 1600	0 0246	0 1354
2013	0 3239	0 0288	0 2951
2014	0 1369	0 0341	0 1028
2015	0 0138	0 0247	-0 0109
2016	0 1196	0 0230	0 0966
2017	0 2183	0 0267	0 1916
2018	-0 0438	0 0282	-0 0720
2019	0 3149	0 0255	0 2894
Average	0 1209	0 0494	0 0715
Std Dev	0 1976	0 0262	0 1987

Source Duff & Phelps, 2020 SBBI Yearbook, Appendix A-1, A-7

FINANCIAL QUARTERLY
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Comparable Earnings: New Life for an Old Precept

by
Frank J. Hanley
Pauline M. Ahern

Reprinted from the American Gas Association's *Financial Quarterly Review*
Summer 1994 edition, Arlington, Va.

Comparable Earnings: New Life for an Old Precept

Accelerating deregulation has greatly increased the investment risk of natural gas utilities As a result, the authors believe it more appropriate than ever to employ the comparable earnings model We believe our application of the model overcomes the greatest traditional objection to it — lack of comparability of the selected non-utility proxy firms. Our illustration focuses on a target gas pipeline company with a beta of 0 96 — almost equal to the market's beta of 1.00

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Pauline M. Ahern is a senior financial analyst with AUS Consultants — Utility Services Group. She has participated in many cost-of-capital studies. A former employee of the U.S. Department of the Treasury and the Federal Reserve Bank of Boston, she holds an MBA degree from Rutgers University and is a Certified Rate of Return Analyst

Introduction

The comparable earnings model used to determine a common equity cost rate is deeply rooted in the standard of "corresponding risk" enunciated in the landmark *Bluefield* and *Hope* decisions of the U S Supreme Court [1] With such solid grounding in the foundations of rate of return regulation, comparable earnings should be accepted as a principal model, along with the currently popular market-based models, provided that its most common criticism, non-comparability of the proxy companies, is overcome.

Our comparable earnings model overcomes the non-comparability issue of the non-utility firms selected as a proxy for the target utility, in this example, a gas pipeline company We should note that in the absence of common stock prices for the target utility (as with a wholly-owned subsidiary), it is appropriate to use the average of a proxy group of similar risk gas pipeline companies whose common stocks are actively traded As we will demonstrate, our selection process results in a group of domestic, non-utility firms that is comparable in total risk, the sum of business and financial risk, which reflects both non-diversifiable systematic, or market, risk as well as diversifiable unsystematic, or firm-specific, risk

Embedded in the Landmark Decisions

As stated in *Bluefield* in 1922: "A public utility is entitled to such rates as will permit it to earn a return on investments in other business undertakings which are attended by corresponding risks and uncertainties . "

In addition, the court stated in *Hope* in 1944: "By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks "

Thus, the "corresponding risk" precept of *Bluefield* and *Hope* predates the use of such market-based cost-of-equity models as the Discounted Cash Flow (DCF) and Capital Asset Pricing (CAPM), which were developed later and are currently popular in rate-base/rate-of-return regulation Consequently, the comparable earnings model has a longer regulatory and judicial history However, it has far greater relevance now than ever before in its history because significant deregulation has substantially increased natural gas utilities' investment risk to a level similar to that of non-utility firms As a result, it is

Comparable Earnings *from page 4*

more important than ever to look to similar-risk non-utility firms for insight into common equity cost rate, especially in view of the deficiencies inherent in the currently popular market-based cost of common equity models, particularly the DCF model.

Despite the fact that the landmark decisions are still regarded as having set the standards for determining a fair rate of return, the comparable earnings model has experienced decreased usage by expert witnesses, as well as less regulatory acceptance over the years. We believe the decline in the popularity of the comparable earnings model, in large measure, is attributable to the difficulty of selecting non-utility proxy firms that regulators will accept as comparable to the target utility. Regulatory acceptance is difficult to gain when the selection process is arbitrary. Our application of the model is objective and consistent with fundamental financial tenets.

Principles of Comparable Earnings

Regulation is a substitute for the competition of the marketplace. Moreover, regulated public utilities compete in the capital markets with all firms, including unregulated non-utilities. The comparable earnings model is based upon the opportunity cost principle; i.e., that the true cost of an investment is the return that could have been earned on the next best available alternative investment of similar risk. Consequently, the comparable earnings model is consistent with regulatory and financial principles, as it is a surrogate for the competition of the marketplace, and investors seek the greatest available rate of return for bearing similar risk.

The selection of comparable firms is the most difficult step in applying the comparable earnings model, as noted by Phillips[2] as well as by Bonbright, Danielsen and Kamerschen.[3] The selection of non-utility proxy firms should result in a sufficiently broad-based group in order to minimize the effect of company-specific aberrations. However, if the selection process is arbitrary, it likely would result in a proxy group that is too broad-based, such as the Standard & Poor's 500 Composite Index or the Value Line Industrial Composite. The use of such groups would require subjective adjustments to the comparable earnings results to reflect risk differences between the group(s) and the target utility, a gas pipeline company in this example.

Authors' Selection Criteria

We base the selection of comparable non-utility firms on market-based, objective, quantitative measures of risk resulting from market prices that subsume investors' assessments of all elements of risk. Thus, our approach is based upon the principle of risk and return; namely, that firms of comparable risk should be expected to earn comparable returns. It is also consistent with the "corresponding risk" standard established in *Bluefield* and *Hope*. We measure total investment risk as the sum of non-diversifiable systematic and diversifiable unsystematic risk. We use the unadjusted beta as a measure of systematic risk and the standard error of the estimate (residual standard error) as a measure of unsystematic risk. Both the unadjusted beta and the residual standard error are derived from a regression of the target utility's security returns relative to the market's returns, which takes the general form:

$$r_{it} = a_i + b_i r_{mt} + e_{it}$$

where:

- r_{it} = tth observation of the ith utility's rate of return
- r_{mt} = tth observation of the market's rate of return
- e_{it} = tth random error term
- a_i = constant least-squares regression coefficient
- b_i = least-squares regression slope coefficient, the unadjusted beta

As shown by Francis,[4] the total variation or risk of a firm's return, Var (r_i), comes from two sources:

Var (r_i) = total risk of ith asset

$= \text{var}(a_i + b_i r_m + e)$
substituting $(a_i + b_i r_m + e)$ for r_i

$= \text{var}(b_i r_m) + \text{var}(e)$ since $\text{var}(a_i) = 0$

$= b_i^2 \text{var}(r_m) + \text{var}(e)$ since $\text{var}(b_i r_m) = b_i^2 \text{var}(r_m)$

= systematic + unsystematic risk

Francis[5] also notes: "The term $\sigma^2(r_i|r_m)$ is called the *residual variance around the regression line* in statistical terms or *unsystematic risk* in capital market theory language. $\sigma^2(r_i|r_m) = \ldots = \text{var}(e)$ The residual variance is the squared standard error in regression language, a measure of unsystematic risk." Application of these criteria results in a group of non-utility firms whose average total investment risk is indeed comparable to that of the target gas pipeline.

As a measure of systematic risk, we use the Value Line unadjusted beta. Beta measures the extent to which market-wide or macro-economic events affect a firm's stock price. We use the unadjusted beta of the target utility as a starting point because it results from the regression of the target utility's security returns relative to the market's returns. Thus, the resulting standard deviation of beta relates to the unadjusted beta. We use the standard deviation of the unadjusted beta to determine the range around it as the selection criterion based on systematic risk.

We use the residual standard error of the regression as a measure of unsystematic risk. The residual standard error reflects the extent to which events specific to the firm's operations affect a firm's stock price. Thus, it is a measure of diversifiable, unsystematic, firm-specific risk.

An Illustration of Authors' Approach

Step One: We begin our approach by establishing the selection criteria as a range of both unadjusted beta and residual standard error of the target gas

continued on page 6

Comparable Earnings *from page 5*

pipeline company.

As shown in table 1, our target gas pipeline company has a Value Line unadjusted beta of 0 90, whose standard deviation is 0 1250 The selection criterion range of unadjusted beta is the unadjusted beta plus (+) and minus (-) three of its standard deviations By using three standard deviations, 99.73 percent of the comparable unadjusted betas is captured

Three standard deviations of the target utility's unadjusted beta equals 0 38 (0.1250 x 3 = 0 3750, rounded to 0.38) Consequently, the range of unadjusted betas to be used as a selection criteria is 0.52 - 1 28 (0 52 = 0 90 - 0 38) and (1.28 = 0.90 + 0.38).

Likewise, the selection criterion range of residual standard error equals the residual standard error plus (+) and minus (-) three of its standard deviations. The standard deviation of the residual standard error is defined as: $\sigma/\sqrt{2N}$.

As also shown in table 1, the target gas pipeline company has a residual standard error of 3.7867. According to the above formula, the standard deviation of the residual standard error would be 0 1664 (0.1664 = 3.7867/$\sqrt{2(259)}$ = 3 7867/22.7596, where 259 = N, the number of weekly price change observations over a period of five years) Three standard deviations of the target utility's residual standard error would be 0 4992 (0 1664 x 3 = 4992). Consequently, the range of residual standard errors to be used as a selection criterion is 3 2875 - 4 2859 (3.2875 = 3 7867 - 0 4992) and (4 2859 = 3 7867 + 0 4992)

Step Two: The step one criteria are applied to Value Line's data base of nearly 4,000 firms for which Value Line derives unadjusted betas and residual standard errors on a weekly basis All firms with unadjusted betas and residual standard errors within the criteria ranges are then selected

Step Three: In the regulatory ratemaking environment, authorized common equity return rates are applied to a book-value rate base Thus, the earnings rates on book common equity, or net worth, of competitive, non-utility firms are highly relevant provided those firms are indeed comparable in total risk to the target gas pipeline. The use of the return rates of other utilities has no relevance because their allowed, and hence subsequently achieved, earnings rates are dependent upon the regulatory

table 1

Summary of the Comparable Earnings Analysis for the Proxy Group of 248 Non-Utility Companies Comparable in Total Risk to the Target Gas Pipeline Company[1]

	1	2	3	4	5	6	7	8
				rate of return on net worth				
	adj. beta	unadj. beta	residual standard error	3-year average[2]	4-year average[2]	5-year average[2]	5-year projected[3]	
average for the proxy group of 248 non-utility companies comparable in total risk to the target gas pipeline company	0.97	0.92	3.7705					
target gas pipeline company	0.96	0.90[4]	3.7867					
median				11.7%	12.0%	12.6%	15.5%	
average of the median historical returns					12.1%			
conclusion[5]								13.8%

[1]The criteria for selection of the non-utility group was that the non-utility companies be domestic and included in *Value Line Investment Survey*. The non-utility group was selected based on an unadjusted beta range of 0.52 to 1.28 and a residual standard error range of 3.2875 to 4.2859.
[2]Ending 1992.
[3]1996-1998/1997-1999.
[4]The average standard deviation of the target gas pipeline company's unadjusted beta is 0.1250.
[5]Equal weight given to both the average of the 3-, 4- and 5-year historical medians (12.1%) and 5-year projected median rate of return on net worth (15.5%). Thus, 13.8% = (12.1% + 15.5% / 2).
Source: Value Line Inc., March 15, 1994
Value Line Investment Survey

Comparable Earnings *from page 6*

process Consequently, we believe all utilities must be eliminated to avoid circularity. Moreover, we believe non-domestic firms must be eliminated because their reporting methods differ significantly from U S. firms.

Step Four: We then eliminated those firms for which Value Line does not publish a "Ratings & Report" in *Value Line Investment Survey* so that the historical and projected returns on net worth[6] are from a consistent source We use historical returns on net worth for the most recent five years, as well as those projected three to five years into the future We believe it is logical to evaluate both historical and projected return rates because it is reasonable to assume that investors avail themselves of both when they are available from widely disseminated information services, such as Value Line Inc. The use of Value Line's return rates on net worth understates the common equity return rates for two reasons First, preferred stock is included in net worth Second, the net worth return rates are as of the end of each period Thus, the use of average common equity return rates would yield higher results

Step Five: Median returns based on the historical average three, four and five years ending 1992 and projected 1996-1998 or 1997-1999 rates of return on net worth are then determined as shown in columns 4 through 7 of table 1 The median is used due to the wide variations and skewness in rates of return on net worth for the non-utility firms as evidenced by the frequency distributions of those returns as shown in illustration 1.

However, we show the average unadjusted beta, 0 92, and residual standard error, 3 7705, for the proxy group in columns 2 and 3 of table 1 because their frequency distributions are not significantly skewed, as shown in illustration 2

Step Six: Our conclusion of a com-

continued on page 8

Illustration 1

Rates of Return on Net Worth for the Proxy Group of 248 Non-Utility Companies[1]

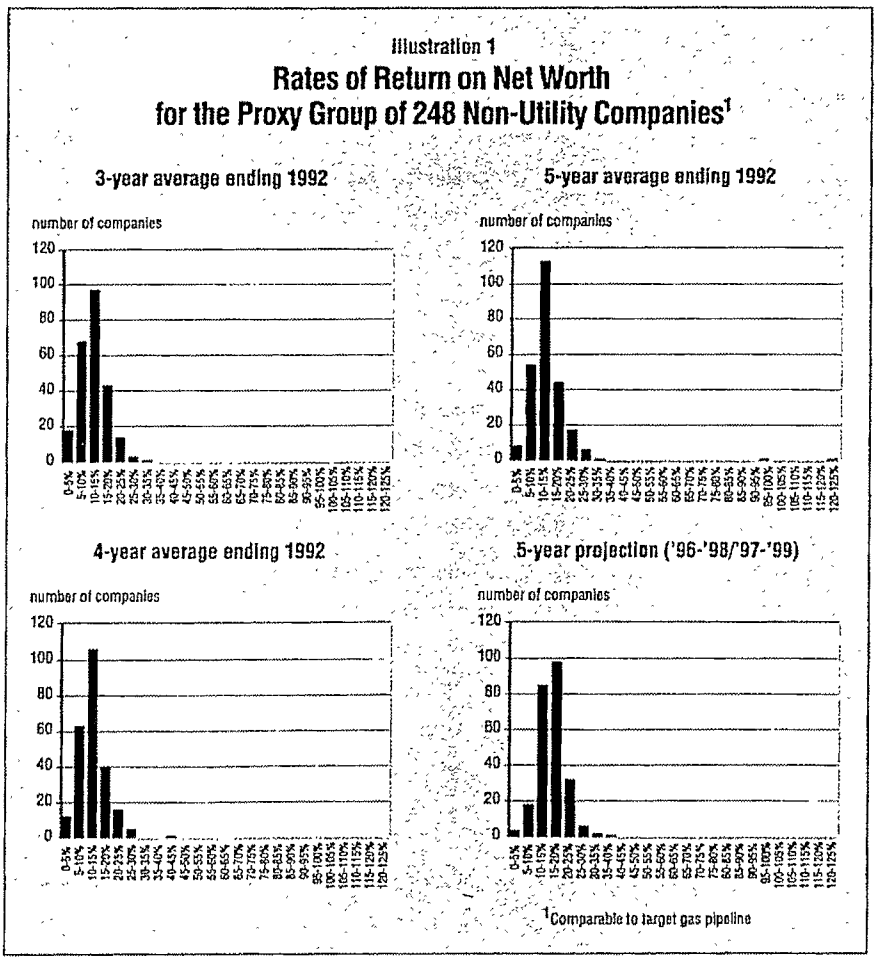
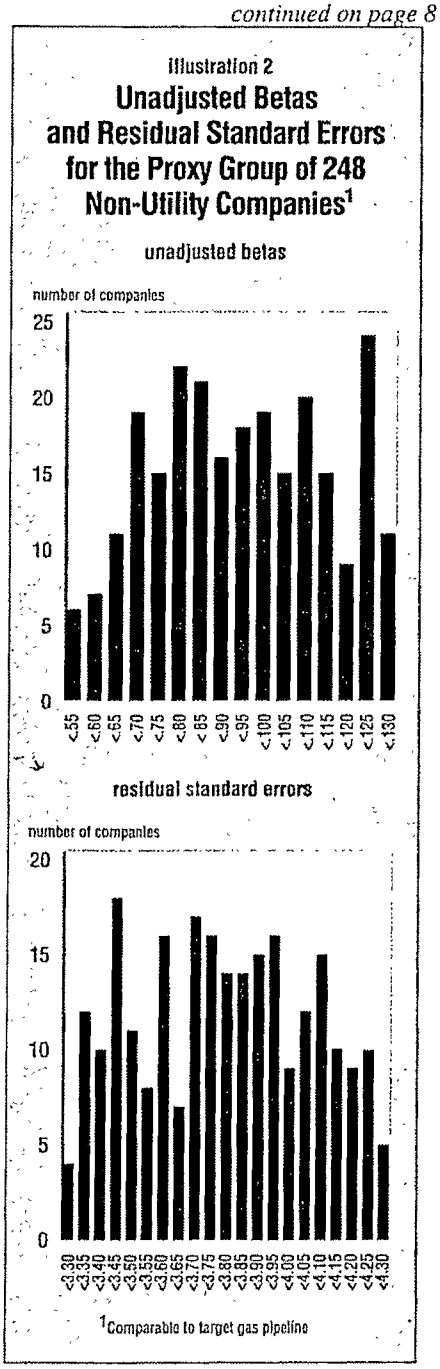


Illustration 2

Unadjusted Betas and Residual Standard Errors for the Proxy Group of 248 Non-Utility Companies[1]



Comparable Earnings *from page 7*

parable earnings cost rate is based upon the mid-point of the average of the median three-, four- and five-year historical rates of return on net worth of 12 1 percent as shown in column 5 and the median projected 1996-1998/1997-1999 rate of return on net worth of 15 5 percent as shown in column 7 of table 1. As shown in column 8, it is 13 8 percent.

Summary

Our comparable earnings approach demonstrates that it is possible to select a proxy group of non-utility firms that is comparable in total risk to a target utility. In our example, the 13 8 percent comparable earnings cost rate is very conservative as it is an expected achieved rate on book common equity (a regulatory allowed rate should be greater) and because it is based on end-of-period net worth A similar rate on average net worth would be about 20 to 40 basis points higher (i e., 14 0 to 14 2 percent) and still understate the appropriate regulatory allowed rate of return on book common equity

Our selection criteria are based upon measures of systematic and unsystematic risk, specifically unadjusted beta and residual standard error They provide the basis for the objective selection of comparable non-utility firms Our selection criteria rely on changes in market prices over approximately five years We compare the aggregate total risk, or the sum of systematic and unsystematic risk, which reflects investors' aggregate assessment of both business and financial risk Thus, no adjustments are necessary to the proxy group results to compensate for the differences in business risk and financial risk, such as accounting practices and debt/equity ratios. Moreover, it is inappropriate to attempt a comparison of the target utility with any individual firm, or subset of firms, in the proxy group because only the average firm of the group is relevant.

Because the comparable earnings model is firmly anchored in the "corresponding risk" precept established in the landmark court decisions, it is worthy of consideration as a principal model for use in estimating the cost rate of common equity capital of a regulated utility. Our approach to the comparable earnings model produces a proxy group that is indeed comparable in total risk because the selection process is objective and quantitative It therefore overcomes criticism linked to arbitrary selection processes

All cost-of-common-equity models, including the DCF and CAPM, are fraught with deficiencies, usually stemming from the many necessary but unrealistic assumptions that underlie them. The effects of the deficiencies of individual models can be mitigated by using more than one model when estimating a utility's common equity cost rate Therefore, when the non-comparability issue is overcome, the comparable earnings model deserves to receive the same consideration as a primary model, as do the currently popular market-based models ■

[1] *Bluefield Water Works Improvement Co v Public Service Commission*. 262 U S 679 (1922) and *Federal Power Commission v Hope Natural Gas Co*. 320 U S 519 (1944)

[2] Charles F Phillips Jr , The Regulation of Public Utilities· Theory and Practice. Public Utilities Reports Inc 1988. p 379

[3] James C Bonbright. Albert L Danielsen and David R Kamerschen. Principles of Public Utilities Rates. 2nd edition. Public Utilities Reports Inc 1988, p 329

[4] Jack Clark Francis. Investments: Analysis and Management, 3rd edition. McGraw-Hill Book Co , 1980, p 363

[5] Id . p 548

[6] Returns on net worth must be used when relying on Value Line data because returns on book common equity for non-utility firms are not available from Value Line

Report Lists Pipeline, Storage Projects

More than $9 billion worth of projects to expand the nation's natural gas pipeline network are in various stages of development, according to an A.G.A. report. These projects involve nearly 8,000 miles of new pipelines and capacity additions to existing lines and represent 15.3 billion cubic feet (Bcf) per day of new pipeline capacity.

During 1993 and early 1994, construction on 3,100 miles of pipeline was completed or under way, at a cost of nearly $4 billion, says A.G.A. These projects are adding 5.4 Bcf in daily delivery capacity nationwide.

Among the projects completed in 1993 were Pacific Gas Transmission Co.'s 805 miles of looping that allows increased deliveries of Canadian gas to the West Coast; Northwest Pipeline Corp.'s addition of 433 million cubic feet of daily capacity for customers in the Pacific Northwest and Rocky Mountain areas; and the 156-mile Empire State Pipeline in New York.

In addition, major construction projects were started on the systems of Texas Eastern Transmission Corp. and Algonquin Gas Transmission Co. — both subsidiaries of Panhandle Eastern Corp. — and along Florida Gas Transmission Co.'s pipeline.

The report goes on to discuss another $5 billion in proposed projects, which, if completed, will add nearly 5,000 miles of pipeline and 9.8 Bcf per day in capacity, much of it serving Florida and West Coast markets.

A.G.A. also identifies 47 storage projects and says that if all of them are built, existing storage capacity will increase by more than 500 Bcf, or 15 percent.

For a copy of *New Pipeline Construction: Status Report 1993-94* (#F00103), call A.G.A. at (703) 841-8490. Price per copy is $6 for employees of member companies and associates and $12 for other customers.

Southwestern Electric Power Company
Calculation of Common Equity and Long-Term Debt Ratios for Operating Companies
within Dr. Woolridge's Electric Proxy Group

Company	Parent	Total Proprietary Capital ($000) 2019	Preferred Stock Issued ($000) 2019	Total Long-term Debt ($000) 2019	Common Equity % 2019	Long-Term Debt %' 2019
Minnesota Power Enterprises, Inc	ALLETE, Inc	2,231,645	0	1,513,405	59 59%	40 41%
Superior Water, Light and Power Company	ALLETE, Inc	54,732	0	39,500	58 08%	41 92%
Interstate Power and Light Company	Alliant Energy Corporation	3,471,773	200,000	3,241,249	50 23%	49 77%
Wisconsin Power and Light Company	Alliant Energy Corporation	2,383,598	0	2,048,849	53 78%	46 22%
Ameren Illinois Company	Ameren Corporation	4,131,138	61,632	3,608,745	53 00%	47 00%
Union Electric Company	Ameren Corporation	4,349,486	80,760	3,956,959	51 90%	48 10%
AEP Texas Inc	American Electric Power Company, Inc	2,961,138	0	3,804,767	43 77%	56 23%
Appalachian Power Company	American Electric Power Company, Inc	4,172,535	0	4,388,913	48 74%	51 26%
Indiana Michigan Power Company	American Electric Power Company, Inc	2,544,376	0	2,899,757	46 74%	53 26%
Kentucky Power Company	American Electric Power Company, Inc	782,180	0	870,000	47 34%	52 66%
Kingsport Power Company	American Electric Power Company, Inc	71,026	0	59,000	54 62%	45 38%
Ohio Power Company	American Electric Power Company, Inc.	2,508,480	0	2,094,308	54 50%	45 50%
Public Service Company of Oklahoma	American Electric Power Company, Inc	1,373,407	0	1,390,401	49 69%	50 31%
Southwestern Electric Power Company	American Electric Power Company, Inc	2,440,486	0	2,560,456	48 80%	51 20%
Wheeling Power Company	American Electric Power Company, Inc	402,888	0	350,000	53 51%	46 49%
Avista Corporation		1,934,255	0	1,871,259	50 83%	49 17%
Alaska Electric Light and Power Company	Avista Corporation	110,720	0	75,000	59 62%	40 38%
Consumers Energy Company	CMS Energy Corporation	7,738,169	37,315	7,263,181	51 46%	48 54%
Consolidated Edison Company of New York, Inc	Consolidated Edison, Inc	14,147,359	0	15,078,952	48 41%	51 59%
Orange and Rockland Utilities, Inc	Consolidated Edison, Inc	762,222	0	824,232	48 05%	51 95%
Rockland Electric Company	Consolidated Edison, Inc	308,412	0	0	NA	NA
Dominion Energy South Carolina, Inc	Dominion Energy, Inc	3,717,553	100	3,347,736	52 58%	47 42%
SCANA Corporation	Dominion Energy, Inc	3,886,003	100	3,611,001	51 83%	48 17%
Virginia Electric and Power Company	Dominion Energy, Inc	13,988,734	0	12,406,935	53 00%	47 00%
Duke Energy Carolinas, LLC	Duke Energy Corporation	12,813,247	0	11,776,476	52 11%	47 89%
Duke Energy Florida, LLC	Duke Energy Corporation	6,789,687	0	6,814,476	49 91%	50 09%
Duke Energy Indiana, LLC	Duke Energy Corporation	4,558,286	0	4,067,521	52 84%	47 16%
Duke Energy Kentucky, Inc	Duke Energy Corporation	645,094	0	661,521	49 37%	50 63%
Duke Energy Ohio, Inc	Duke Energy Corporation	3,693,838	0	1,970,170	65 22%	34 78%
Duke Energy Progress, LLC	Duke Energy Corporation	9,245,384	0	8,781,885	51 29%	48 71%
Southern California Edison Company	Edison International	17,827,270	2,245,055	15,316,326	50 43%	49 57%
Entergy Arkansas, LLC	Entergy Corporation	3,125,938	0	3,399,790	47 90%	52 10%
Entergy Louisiana, LLC	Entergy Corporation	6,396,720	0	7,078,967	47 47%	52 53%
Entergy Mississippi, LLC	Entergy Corporation	1,542,151	0	1,631,127	48 60%	51 40%
Entergy New Orleans, LLC	Entergy Corporation	497,579	0	512,441	49 26%	50 74%
Entergy Texas, Inc	Entergy Corporation	1,799,407	35,000	1,734,259	50 43%	49 57%
Evergy Kansas South, Inc	Evergy, Inc	3,048,823	0	670,923	81 96%	18 04%
Evergy Metro, Inc	Evergy, Inc	2,574,219	0	2,542,812	50 31%	49 69%
Evergy Missouri West, Inc	Evergy, Inc	1,088,654	0	1,073,989	50 34%	49 66%
Great Plains Energy Incorporated	Evergy, Inc.	3,662,873	0	3,616,801	50 32%	49 68%
Westar Energy (KPL)	Evergy, Inc	4,197,866	0	3,043,720	57 97%	42 03%
NSTAR Electric Company	Eversource Energy	4,202,883	43,000	3,360,946	55 31%	44 69%
Public Service Company of New Hampshire	Eversource Energy	1,391,733	0	1,521,662	47 77%	52 23%
The Connecticut Light and Power Company	Eversource Energy	4,504,025	116,200	3,543,166	55 33%	44 67%
Hawaii Electric Light Company, Inc	Hawaiian Electric Industries, Inc	NA	NA	NA	NA	NA
Hawaiian Electric Company, Inc	Hawaiian Electric Industries, Inc	2,081,645	34,293	1,497,667	57 75%	42 25%
Maui Electric Company, Limited	Hawaiian Electric Industries, Inc	NA	NA	NA	NA	NA
Idaho Power Company	IDACORP, Inc	2,275,558	0	1,851,044	55 14%	44 86%
Madison Gas and Electric Company	MGE Energy, Inc	777,672	0	547,724	58 67%	41 33%
Florida Power & Light Company	NextEra Energy, Inc	21,405,094	0	14,130,807	60 24%	39 76%
Gulf Power Company	NextEra Energy, Inc	1,715,532	0	1,694,975	50 30%	49 70%
NorthWestern Corporation		2,039,093	0	2,245,637	47 59%	52 41%
Oklahoma Gas and Electric Company	OGE Energy Corp	3,958,233	0	3,219,404	55 15%	44 85%
Otter Tail Power Company	Otter Tail Corporation	640,166	0	612,000	51 12%	48 88%
Arizona Public Service Company	Pinnacle West Capital Corporation	5,876,263	0	5,254,071	52 80%	47 20%
Portland General Electric Company		2,591,260	0	2,607,358	49 85%	50 15%
Kentucky Utilities Company	PPL Corporation	2,967,162	0	2,639,741	52 92%	47 08%
Louisville Gas and Electric Company	PPL Corporation	2,373,814	0	2,019,898	54 03%	45 97%
PPL Electric Utilities Corporation	PPL Corporation	4,832,811	0	4,015,201	54 62%	45 38%
Alabama Power Company	The Southern Company	9,245,667	297,512	8,567,817	51 09%	48 91%
Georgia Power Company	The Southern Company	15,065,452	0	11,777,273	56 12%	43 88%
Mississippi Power Company	The Southern Company	1,651,630	0	1,596,856	50 84%	49 16%
Oncor Electric Delivery Company LLC	Sempra Energy	10,137,397	0	7,152,453	58 63%	41 37%
San Diego Gas & Electric Company	Sempra Energy	7,099,081	0	5,128,386	58 06%	41 94%
Upper Michigan Energy Resources Corporation	WEC Energy Group, Inc	199,165	0	160,000	55 45%	44 55%
Wisconsin Electric Power Company	WEC Energy Group, Inc	3,591,497	30,450	2,767,219	56 27%	43 73%
Wisconsin Public Service Corporation	WEC Energy Group, Inc	1,953,803	0	1,624,093	54 61%	45 39%
Northern States Power Company	Xcel Energy Inc	6,081,828	0	5,569,033	52 20%	47 80%
Northern States Power Company	Xcel Energy Inc	966,559	0	815,849	54 23%	45 77%
Public Service Company of Colorado	Xcel Energy Inc	6,996,196	0	5,426,223	56 32%	43 68%
Southwestern Public Service Company	Xcel Energy Inc	2,884,448	0	2,442,933	54 14%	45 86%
				Average	53 12%	46 88%
				Median	52 39%	47 61%

Southwestern Electric Power Company
Demonstration of the Inadequacy of
a DCF Return Rate Related to Book Value
When Market Value is Greater than Book Value

		[A]	[B]
		Based on Dr. Woolridge's Electric Proxy Group	
Line No.		Market Value	Book Value
1.	Per Share	$ 66.86 (1)	$ 36.56 (2)
2.	DCF Cost Rate (3)	9 00%	9.00%
3	Return in Dollars (4)	$ 6 017	$ 3 290
4.	Dividends (5)	$ 2 541	$ 2.541
5.	Growth in Dollars (6)	$ 3 476	$ 0.749
6.	Return on Market Value (7)	9 00%	4.92%
7.	Rate of Growth on Market Value (8)	5.20%	1.12%

Notes.
(1) Average market price calculated using the 90 day dividend yield and annual dividend as shown on page 2 of Exhibit JRW-7
(2) Average book value dividing total common equity at year-end 2019 by common shares outstanding at year-end 2019 for each proxy group
(3) Dr. Woolridge's Recommended DCF cost rate
(4) Line 1 x Line 2.
(5) Dividends are based on a 3 8% dividend yield from Exhibit JRW-7
(6) Line 3 - Line 4.
(7) Line 3 / Line 1.
(8) Line 5 / Line 1.

Southwestern Electric Power Company
Calculation of Indicated DCF Applied to Book Value Capital Structure
of Dr. Woolridge's Electric Proxy Group

Un-lever Indicated Market Capital Structure DCF

Ku	=	Ke	-	(((	Ku	-	ı	)	1	-	t	)	D	/	E	)	-	(	Ku	-	d	)	P	/	E
Ku	=	9 00%	-	(((	Ku	-	4 14%	)	1	-	21%	)	36 36%	/	63 20%	)	-	(	Ku	-	5 33%	)	0 44%	/	63 20%
Ku	=	9 00%	-	(((	Ku	-	4 14%	)		79 00%		)		57 53%		)	-	(	Ku	-	5 33%	)		0 69%	
Ku	=	9 00%	-	((	79 00%	*	Ku	-		3 2671%		)		57 53%		)	-	(	0 69%	*	Ku	-	0 04%	)	
Ku	=	9.00%	-	(	45 45%	*	Ku	-		1.88%		)			-0 69%		*		Ku	+	0.04%				
Ku	=	9 00%			-45 45%	*	Ku	+		1 88%					-0 69%		*		Ku	+	0 04%				
Ku	=	10 92%			-46 14%	*	Ku																		
146.14%	*	Ku	=		10 92%																				
		Ku	=		**7.47%**																				

Re-lever to Indicated Book Value Capital Structure DCF

Ke	=	Ku	+	(((	Ku	-	ı	)	1	-	t	)	D	/	E	)	+	(	Ku	-	d	)	P	/	E
Ke	=	7.47%	+	(((	7.47%	-	4 14%	)	1	-	21%	)	53 32%	/	46 01%	)	+	(	7 47%	-	5 33%	)	0 67%	/	46.01%
Ke	=	7 47%	+	(((		3 33%		)		79%		)		115 88%		)	+	(		2 14%		)		1 46%	
Ke	=	7 47%	+	((	2 63%	)	115 88%	)	+	(	0.03%	)													
Ke	=	7 47%	+	(	3 05%	)	+			0 03%															
		Ke	=		**10.55%**																				

Where
- Ku = Un-levered (ı e , 100% equity) cost of common equity
- Ke = Market determined cost of common equity
- ı = Cost of debt
- t = Income tax rate
- D = Debt ratio
- E = Equity ratio
- d = Cost of preferred stock
- P = Preferred equity ratio

Southwestern Electric Power Company
Correction to Dr. Woolridge's DCF Study

Panel A
Electric Proxy Group

Dividend Yield*	3.80%
Adjustment Factor	1.0281
Adjusted Dividend Yield	3.91%
Growth Rate**	5.6%
Equity Cost Rate	9.53%

* Page 2 of Exhibit JRW-7

** Based on projected EPS growth rates from Value Line, Yahoo!, Zacks, and S&P Capital IQ from pages 4 of 5 of Exhibit JRW-7

Panel B
D'Ascendis Proxy Group

Dividend Yield*	3.90%
Adjustment Factor	1.0268
Adjusted Dividend Yield	4.00%
Growth Rate**	5.4%
Equity Cost Rate	9.37%

* Page 2 of Exhibit JRW-7

** Based on projected EPS growth rates from Value Line, Yahoo!, Zacks, and S&P Capital IQ from pages 4 of 5 of Exhibit JRW-7

Southwestern Electric Power Company
DCF Equity Cost Growth Rate Measures
Dr. Woolridge's Value Line and Analysts Projected EPS Growth Rate Estimates Combined

Panel A
Electric Proxy Group

Company	Yahoo	Zacks	S&P	Value Line
ALLETE, Inc. (NYSE-ALE)	7.0%	N/A	6.0%	6.0%
Alliant Energy Corporation (NYSE-LNT)	5.7%	5.8%	5.8%	5.5%
Ameren Corporation (NYSE-AEE)	6.6%	6.6%	6.8%	6.0%
American Electric Power Co. (NYSE-AEP)	6.0%	5.8%	6.2%	6.0%
Avista Corp (NYSE-AVA)	6.0%	6.9%	5.3%	1.0%
CMS Energy Corporation (NYSE-CMS)	7.3%	7.0%	6.9%	7.5%
Consolidated Edison, Inc. (NYSE-ED)	3.0%	2.0%	3.0%	2.5%
Dominion Energy Inc. (NYSE-D)	2.8%	6.7%	6.6%	7.0%
Duke Energy Corporation (NYSE-DUK)	5.0%	5.2%	5.2%	5.0%
Edison International (NYSE-EIX)	NA	3.1%	4.0%	12.0%
Entergy Corporation (NYSE-ETR)	5.2%	5.2%	5.6%	3.0%
Evergy (NYSE-EVRG)	5.7%	5.9%	6.4%	8.0%
Eversource Energy (NYSE-ES)	7.1%	6.8%	6.9%	6.5%
Hawaiian Electric Industries (NYSE-HE)	1.3%	2.5%	3.6%	1.5%
IDACORP, Inc. (NYSE-IDA)	2.6%	2.6%	3.0%	4.5%
MGE Energy, Inc. (NYSE-MGEE)	4.7%	4.7%	4.7%	4.5%
Nextera Energy, Inc. (NYSE-NEE)	8.5%	7.8%	9.2%	10.5%
NorthWestern Corporation (NYSE-NWE)	4.7%	5.3%	4.8%	2.5%
OGE Energy Corp. (NYSE-OGE)	2.1%	3.6%	2.3%	4.0%
Otter Tail Corporation (NDQ-OTTR)	9.0%	N/A	5.4%	7.0%
Pinnacle West Capital Corp. (NYSE-PNW)	3.5%	3.8%	3.6%	4.5%
Portland General Electric Company (NYSE-POR)	13.4%	13.4%	4.7%	4.0%
PPL Corporation (NYSE-PPL)	N/A	N/A	3.2%	2.5%
Sempra Energy (NYSE-SRE)	8.5%	6.0%	5.4%	11.0%
Southern Company (NYSE-SO)	6.5%	5.0%	5.7%	3.5%
WEC Energy Group (NYSE-WEC)	6.1%	6.1%	5.8%	6.5%
Xcel Energy Inc. (NYSE-XEL)	6.3%	6.2%	5.5%	6.0%
Mean	5.8%	5.6%	5.2%	5.5%
Median	6.0%	5.8%	5.4%	5.5%

Panel B
D'Ascendis Proxy Group

Company	Yahoo	Zacks	S&P	Value Line
ALLETE, Inc. (NYSE-ALE)	7.0%	N/A	6.0%	6.0%
Alliant Energy Corporation (NYSE-LNT)	5.7%	5.8%	5.8%	5.5%
Ameren Corporation (NYSE-AEE)	6.6%	6.6%	6.8%	6.0%
Duke Energy Corporation (NYSE-DUK)	5.0%	5.2%	5.2%	5.0%
Edison International (NYSE-EIX)	NA	3.1%	4.0%	12.0%
Entergy Corporation (NYSE-ETR)	5.2%	5.2%	5.6%	3.0%
IDACORP, Inc. (NYSE-IDA)	2.6%	2.6%	3.0%	4.5%
NorthWestern Corporation (NYSE-NWE)	4.7%	5.3%	4.8%	2.5%
OGE Energy Corp. (NYSE-OGE)	2.1%	3.6%	2.3%	4.0%
Otter Tail Corporation (NDQ-OTTR)	9.0%	N/A	5.4%	7.0%
Pinnacle West Capital Corp. (NYSE-PNW)	3.5%	3.8%	3.6%	4.5%
Portland General Electric Company (NYSE-POR)	13.4%	13.4%	4.7%	4.0%
Xcel Energy Inc. (NYSE-XEL)	6.3%	6.2%	5.5%	6.0%
Mean	5.9%	5.5%	4.8%	5.4%
Median	5.4%	5.2%	5.2%	5.0%

Notes:
Yahoo, Zacks and S&P growth rates from Exhibit JRW-7, page 5. Value Lines reflects projected earnings growth from Exhibit JRW-7, page 4.